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SCREENING SITE INSPECTION REPORT

FOR

NU-GLO LABORATORY

DAYTON, OHIO

U.S. EPA ID: OHD004248613

SS ID: NONE

TDD: F05-9007-006

PAN: FOH0585SA



OCTOBER 8, 1991



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1. INTRODUCTION

Ecology and Environment, Inc., Field Investigation Team (FIT) was tasked by the United States Environmental Protection Agency (U.S. EPA) to conduct a screening site inspection (SSI) of the Nu-Glo Laboratory (NGL) site under contract number 68-01-7347.

The site was initially discovered by the Ohio Environmental Protection Agency (OEPA). The site was discovered on June 18, 1985, when William Ankeney Engraving Company (WAEC) filed a complaint with OEPA regarding the detection of chemicals in its well water that were believed to have originated from Nu-Glo Laboratories (Nu-Glo), located adjacent to WAEC (U.S. EPA 1986).

The site was evaluated in the form of a preliminary assessment (PA) that was submitted to U.S. EPA. The PA was prepared by Scott Shane of OEPA and is dated January 29, 1986 (U.S. EPA 1986).

FIT prepared an SSI work plan for the NGL site under technical directive document (TDD) F05-8703-297, issued on March 9, 1987. The SSI work plan was approved by U.S. EPA on July 2, 1990. The SSI of the NGL site was conducted on November 6 and 7, 1990, under TDD F05-9007-006, issued on July 12, 1990.

The FIT SSI included a reconnaissance inspection of the site, site representative interviews, and the collection of nine soil samples and four monitoring well samples.

The purposes of an SSI have been stated by U.S. EPA in a directive outlining Pre-Remedial Program strategies. The directive states:

All sites will receive a screening SI to 1) collect additional data beyond the PA to enable a more refined preliminary HRS [Hazard Ranking System] score, 2) establish priorities among sites most likely to qualify for the NPL [National Priorities List], and 3) identify the most critical data requirements for the listing SI step. A screening SI will not have rigorous data quality objectives (DQOs). Based on the refined preliminary HRS score and other technical judgement factors, the site will then either be designated as NFRAP [no further remedial action planned], or carried forward as an NPL listing candidate. A listing SI will not automatically be done on these sites, however. First, they will go through a management evaluation to determine whether they can be addressed by another authority such as RCRA [Resource Conservation and Recovery Act].... Sites that are designated NFRAP or deferred to other statutes are not candidates for a listing SI.

The listing SI will address all the data requirements of the revised HRS using field screening and NPL level DQOs. It may also provide needed data in a format to support remedial investigation work plan development. Only sites that appear to score high enough for listing and that have not been deferred to another authority will receive a listing SI. (U.S. EPA 1988)

U.S. EPA Region V has also instructed FIT to identify sites during the SSI that may require removal action to remediate an immediate human health or environmental threat.

2. SITE BACKGROUND

2.1 INTRODUCTION

This section presents information obtained from SSI work plan preparation, the site representative interviews, and the reconnaissance inspection of the site.

2.2 SITE DESCRIPTION

The NGL site is an inactive facility where automobile cleaning compounds were formerly manufactured. The site is located at 3465 Dayton-Xenia Road in the Shadybrook subdivision of Beavercreek, Greene County, Ohio (SW1/4NW1/4NW1/4 sec. 32, T.2, R.6) (see Figure 2-1 for site location). The site is located on a lot that measures 100 feet by 300 feet. Although the Shadybrook subdivision is predominantly residential, commercial and light industrial land uses are also present in the area.

A 4-mile radius map of the NGL site is provided in Appendix A.

2.3 SITE HISTORY

The NGL site is currently owned by B. B. Mathews. Mathews bought the site from Shirley Miracle in 1961. Prior to 1961, the house on-site was used only as a residence by Miracle. FIT file information does not indicate how long Miracle owned the site, nor does it contain information about ownership prior to Miracle's. From 1961 to 1963, Mathews used the site as a residence. In 1963 Mathews began Nu-Glo, an automobile cleaning compound manufacturing operation (Stewart 1991, 1991a). The manufacturing operations were conducted in the house on-site.



SOURCE: USGS, Bellbrook, OH Quadrangle, 7.5 Minute Series, 1965, Photorevised 1974.

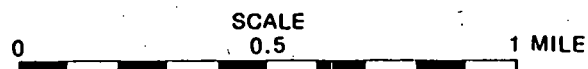


FIGURE 2-1 SITE LOCATION

Nu-Glo formulated compounds used as rubber cleaner and tar remover, engine shampoo, car wash soap, upholstery and carpet cleaner, vinyl cleaner, and automobile wax. Some of the principal chemicals used by Nu-Glo included toluene, kerosene, alkylphenol ethoxylate, alkylbenesulfanate, 1,1,1 trichloroethane hydrocarbon mixtures, and tetrachloroethylene (Stewart 1991, 1991a; Renkowski and Springer 1986). Chemicals were delivered to the site in 55-gallon drums and then repackaged into 1-gallon containers when the compounds were formulated for sale (Stewart 1991). Most of the product formulations were prepared by a chemist in the storage shed located at the southwest edge of the site. Rita Stewart, General Manager, Nu-Glo, stated that the method used to mix the cleaning compounds involved rolling the 55-gallon drums along the dirt driveway beside the house (Renkowski and Springer 1986). Stewart also stated that no surplus raw materials accumulated from the cleaning compound manufacturing operation because all of the chemicals were used in the formulation of the final product (Stewart 1991). However, analyses of drums removed from the storage shed in 1985 and 1989 indicated that off-specification products were part of the Nu-Glo waste stream (Buthker 1991).

In June 1975 Nu-Glo began a dry cleaning operation that was located in the back, or southwest, portion of the main building. The dry cleaning operation was used to clean buffing pads used by the automobile industry for polishing automobiles. A chemical used in the dry cleaning operation was perchloroethylene, a solvent derived from a feed stock that utilizes acetylene as the raw material. Nu-Glo ceased dry cleaning operations in June 1976 (Stewart 1991; Buthker 1990). The dry cleaning unit was subsequently abandoned. Eventually the seals to the unit decomposed and failed. Approximately 35 gallons of the dry cleaning solution, which remained in the unit, leaked through the decomposed seals onto the ground (Buthker 1990).

According to Stewart, in winter 1984 a kerosene-based fuel oil was released from an aboveground storage tank. Because of a heavy snow cover and the belief that a theft had occurred instead of spillage, the release was not discovered until an OEPA inspector pointed out the ring of dead grass several months later. Approximately 100 gallons was believed to have been spilled. The kerosene-based fuel oil was used in

the formulation of engine shampoo (Stewart 1991; Renkowski and Springer 1986).

On June 4, 1985, WAEC collected a sample of water from the well on its property and submitted it to Howard Laboratories, Inc. (HLI), for analysis. The sample was collected because WAEC believed that chemicals from the adjacent NGL site were causing an odor in its potable water supply. The HLI results indicated the presence of volatile organic compounds (VOCs) in the water. The VOCs included 8,200 ppb of 1,1,1-trichloroethane and 1,250 ppb of 1,1-dichloroethane (U.S. EPA 1986).

On June 18, 1985, WAEC reported to OEPA that chemicals believed to have originated from the NGL site had contaminated its well. In response to this complaint, Jeff Hines of OEPA conducted an investigation of the NGL site in summer 1985. That summer, OEPA formally requested that Nu-Glo collect samples from all drums on-site containing product or waste material and collect soil samples in the vicinity of the fuel oil release. The sampling effort was coordinated by OEPA with sample collection being performed by HLI for Nu-Glo. Results of the sampling indicated the presence of VOCs in the drummed substances and in the soil samples. Ethanol was detected at 473 ppb in one drum sample; in another a trace of xylene was detected. Isopropyl ether was detected in a third drum, but the laboratory was unable to quantitate the results. The soil samples revealed 3,500 µg/kg tetrachloroethylene and 3,460 µg/kg trichloroethylene.

OEPA also conducted an extent-of-contamination study in July and August 1985. VOCs were detected in 8 of 64 private wells tested in the Shadybrook subdivision as well as in surface waters in the area. The VOCs detected included 1,1,1-trichloroethene, tetrachloroethylene, and cis-1,2-dichloroethylene. These eight wells were resampled in 1986, 1987, and 1989. VOCs were detected in four wells; however, no VOCs were detected in the wells located south of Nu-Glo (Buthker 1991).

After consulting with the Center for Disease Control (CDC) in Atlanta, the Greene County Health Department (GCHD) recommended that Nu-Glo and WAEC discontinue using well water for bathing and consumption. Additionally, on July 18, 1985, GCDH issued written notices to residents of the Shadybrook subdivision suggesting the use of an alternative water supply until further results were made available regarding

water quality in the area. Emergency water tanks were provided for the residents by the Beavercreek City Council (U.S. EPA 1986a).

The evaluation by GCHD of the results of the analysis, in conjunction with U.S. EPA and other state and federal agencies, resulted in the assessment that no immediate health risk existed except for wells at Nu-Glo and WAEC. Nu-Glo and WAEC were advised to discontinue using well water. Emergency water provisions for the subdivision were discontinued (OEPA 1985). Emergency water was provided for approximately two weeks (Luken 1985).

On October 4, 1985, OEPA requested federal assistance from U.S. EPA to assess the situation in the city of Beavercreek (White 1985). On October 30, 1985, a U.S. EPA Technical Assistance Team (TAT) conducted a site investigation of the NGL site. This investigation led to TAT being tasked by U.S. EPA to collect soil and groundwater samples on and around the NGL site on March 4, 1986. The second investigation confirmed the presence of VOCs in the soil and the groundwater (Renkowski and Springer 1986). Recommendations were made by TAT for mitigative alternatives and future response activities (Renkowski and Springer 1986).

According to Stewart, the site was closed by order of the local fire authority (Stewart 1991a). The exact date of the closure is not known. In January 1986 Nu-Glo moved its operations to 1328 Burnett in Xenia, Ohio (U.S. EPA 1986a; Stewart 1991c)

According to Stewart, legal action by the state of Ohio regarding the site was finalized on March 25, 1991. Nu-Glo was fined and a lien was placed on the property of the site to pay for the cleanup of the site (Stewart 1991b). In addition, a complaint for Injunctive Relief and Civil Penalties was filed on April 9, 1991, and a consent order restricting further use of the site was filed on April 10, 1991. Both documents were filed by the Ohio Attorney General in the Court of Common Pleas, Greene County, Ohio (Buthker 1991).

3. SCREENING SITE INSPECTION PROCEDURES AND FIELD OBSERVATIONS

3.1 INTRODUCTION

This section outlines procedures and observations of the SSI of the NGL site. Individual subsections address the site representative interviews, reconnaissance inspection, and sampling procedures. Rationales for specific FIT activities are also provided. The SSI was conducted in accordance with the U.S. EPA-approved work plan with the following exceptions. Nine soil/sediment samples were collected instead of the eight soil/sediment samples called for in the work plan. One additional soil sample was collected to determine whether TCL compounds or TAL analytes had migrated to a low-lying area of the site. FIT did not collect any of the three residential well samples called for in the work plan. Private wells do exist in the area of the site, however, FIT found it difficult to locate these.

The U.S. EPA Potential Hazardous Waste Site Inspection Report (Form 2070-13) for the NGL site is provided in Appendix B.

3.2 SITE REPRESENTATIVE INTERVIEWS

On November 7, 1990, the date of the SSI, site representatives were not available for an interview. Timothy A. Temple, FIT team member, conducted telephone interviews with Rita Stewart, General Manager, Nu-Glo, on March 4, 1991, at 10:40 a.m. and on March 7, 1991, at 9:45 a.m. The interviews were conducted to gather information that would aid FIT in conducting SSI activities.

3.3 RECONNAISSANCE INSPECTION

FIT conducted a reconnaissance inspection of the NGL site and surrounding area in accordance with Ecology and Environment, Inc. (E & E), health and safety guidelines. The reconnaissance inspection began at 11:00 a.m. on November 6, 1991, and included a walk-through of the site to determine appropriate health and safety requirements for conducting on-site activities and to make observations to aid in characterizing the site. FIT also determined sampling locations during the reconnaissance inspection. FIT was not accompanied by the site representative during the reconnaissance inspection.

Reconnaissance Inspection Observations. The Nu-Glo site facility consists of a house/facility located on a 300-foot by 100-foot lot bounded by Dayton-Xenia Road to the northeast and WAEC to the east (see Figure 3-1 for the site features). A dirt driveway, approximately 75 feet in length, runs along the northwest side of the house/facility. A wooded marshy area is located to the south of the site.

Between the dirt driveway and the northwest side of the house/facility is a concrete pad. FIT observed empty 55-gallon drums, stacked boxes, and other debris on the concrete pad.

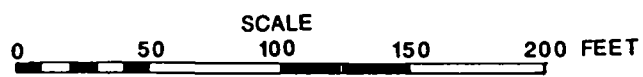
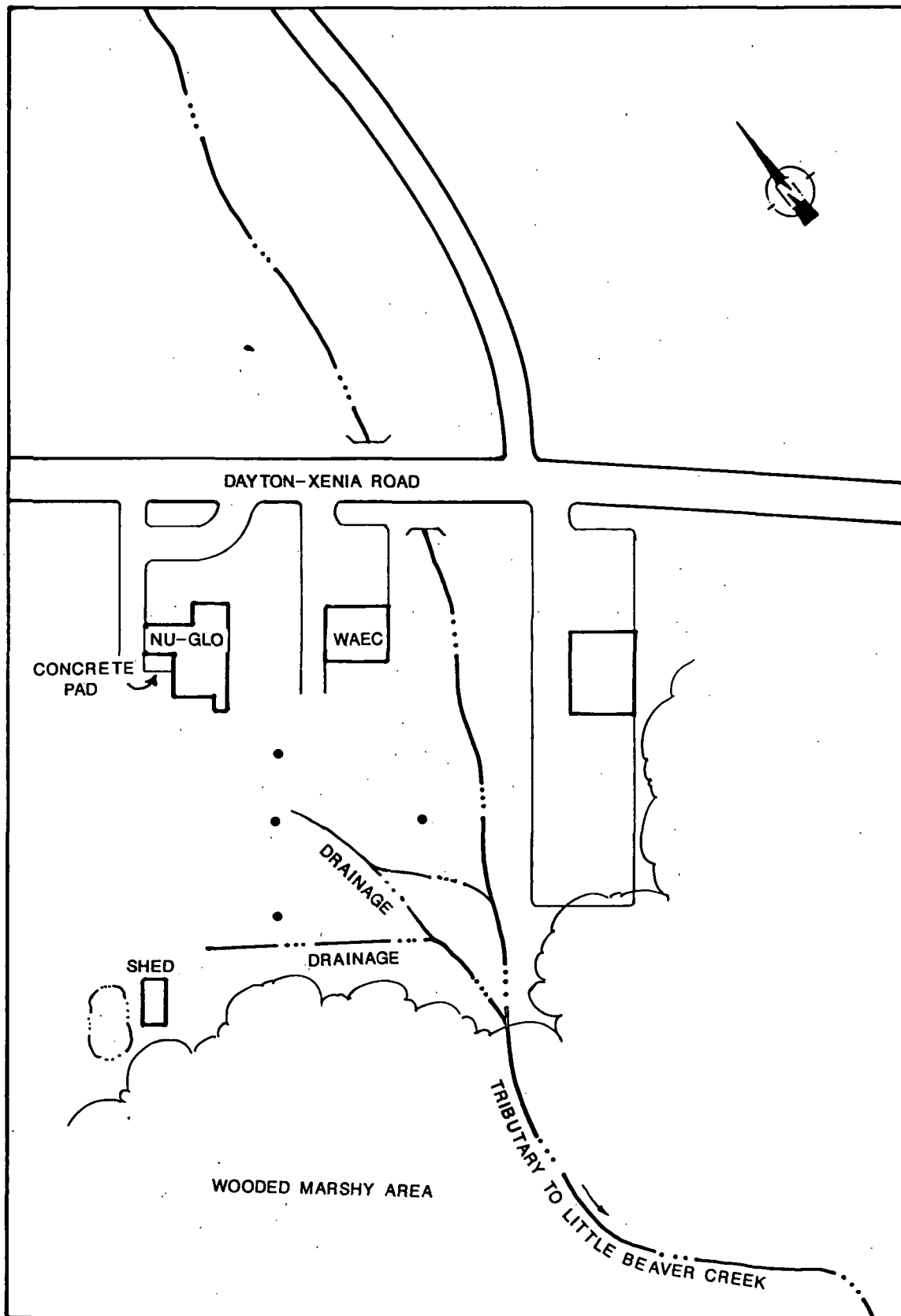
An empty shed, 10 feet by 30 feet in size, is located approximately 150 feet southwest of the house/facility. A small shallow pond is located west of the shed. Overgrown grass covers the site. Several metal frame structures were observed at various locations about the site. Drainage furrows extend from the site across the WAEC property to a tributary to Little Beaver Creek located approximately 150 feet east of the Nu-Glo site. The tributary flows south into the wooded marshy area.

Additional features noted during the reconnaissance inspection include several monitoring wells located on the southwest portion of the WAEC property. No fences or other security measures exist at the site.

FIT photographs from the SSI of the NGL site are provided in Appendix C.

3.4 SAMPLING PROCEDURES

Samples were collected by FIT at locations selected during the reconnaissance inspection to determine whether U.S. EPA Target Compound



LEGEND
● MONITORING WELL

FIGURE 3-1 SITE FEATURES

List (TCL) compounds or Target Analyte List (TAL) analytes were present at the site. The TCL and TAL are included with corresponding quantitation/detection limits in Appendix D.

On November 6, 1990, FIT collected four monitoring well samples. On November 7, 1990, FIT collected nine soil/sediment samples, one of which was a potential background sample. Sample portions were offered to the site representative. However, this offer was not accepted.

Monitoring Well Sampling Procedures. All monitoring well samples were collected on the WAEC property (see Figure 3-2 for monitoring well sampling locations). The monitoring wells were sampled to determine whether TCL compounds or TAL analytes were present in the groundwater. Monitoring wells MW1, MW2, and MW4 are located along the southwest border of the WAEC property. Monitoring well MW3 is located along the southeast border of the property (see Table 3-1 for monitoring well data).

In accordance with U.S. EPA quality assurance/quality control requirements, a duplicate monitoring well sample and a field blank sample were collected. The duplicate sample was collected at location MW2. The field blank sample was prepared from distilled water.

All monitoring wells were purged of three to five volumes of standing water prior to the collection of each sample. All monitoring well samples were collected with stainless steel bailers that had been scrubbed with a solution of detergent (Alconox) and distilled water, and triple-rinsed with distilled water prior to the collection of each sample (E & E 1987).

As directed by U.S. EPA, all monitoring well samples were analyzed using the U.S. EPA Contract Laboratory Program (CLP).

Soil/Sediment Sampling Procedures. Soil sample S2 was collected in the southwest portion of the site at the edge of the wooded marshy area, approximately 12 feet south of the corner of the shed (see Figure 3-3 for soil/sediment sampling locations). Sample S2 was a grab sample collected at a depth of approximately 2 feet. The sample material was black and had a wet, oily sheen. The HNu registered readings that deviated from background at this location. Soil sample S3 was also collected in the southwest portion of the site, approximately 10 feet

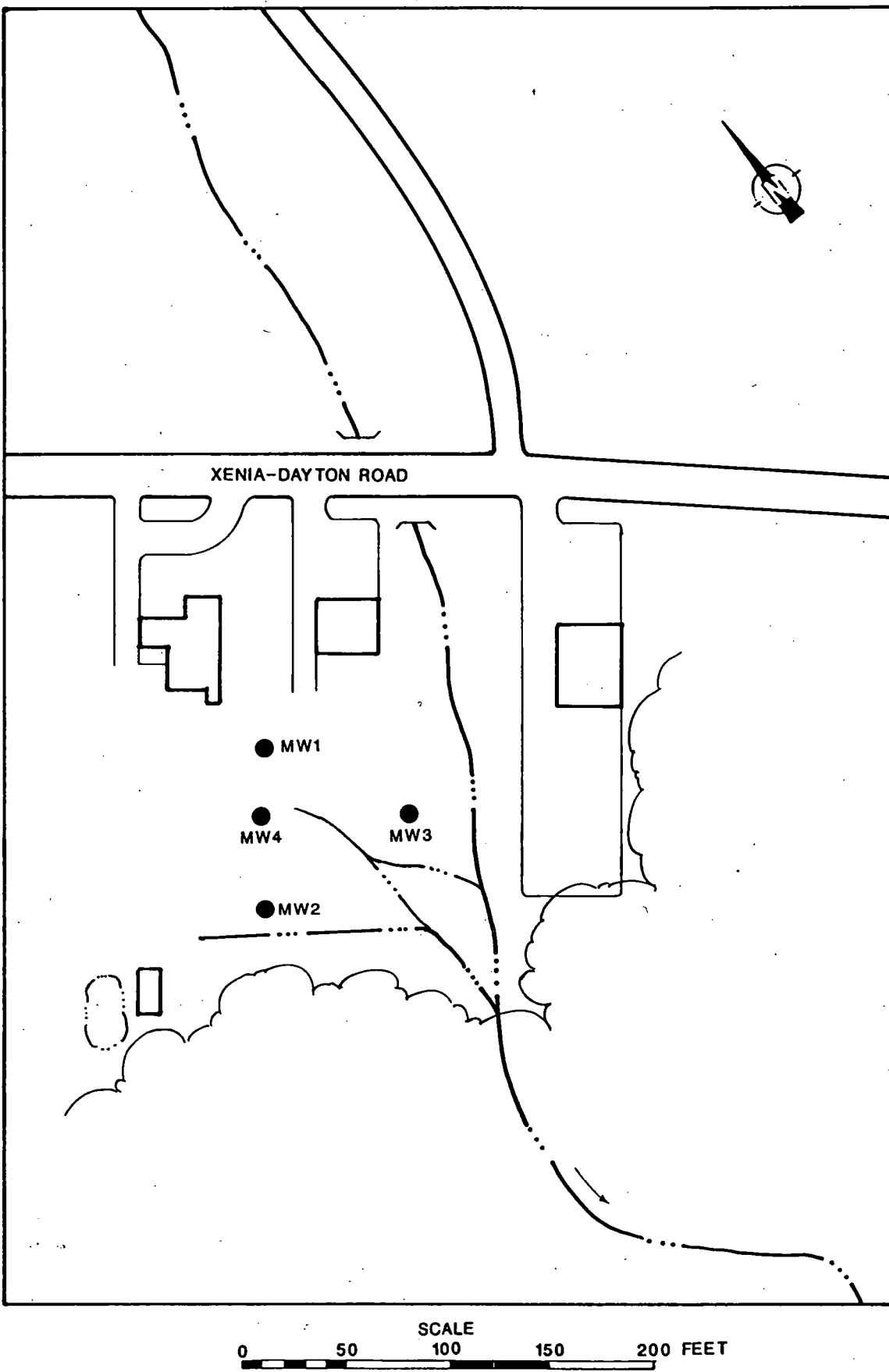


FIGURE 3-2 MONITORING WELL SAMPLING LOCATIONS

Table 3-1

MONITORING WELL DATA

Well	Well Depth (feet)	Depth to Water (feet)
MW1	55.3	2.65
MW2 (and Duplicate)	18.3	2.4
MW3	18.3	4.7
MW4	27.6	0.8

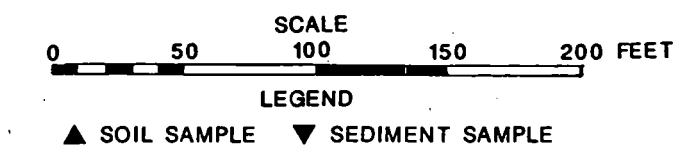
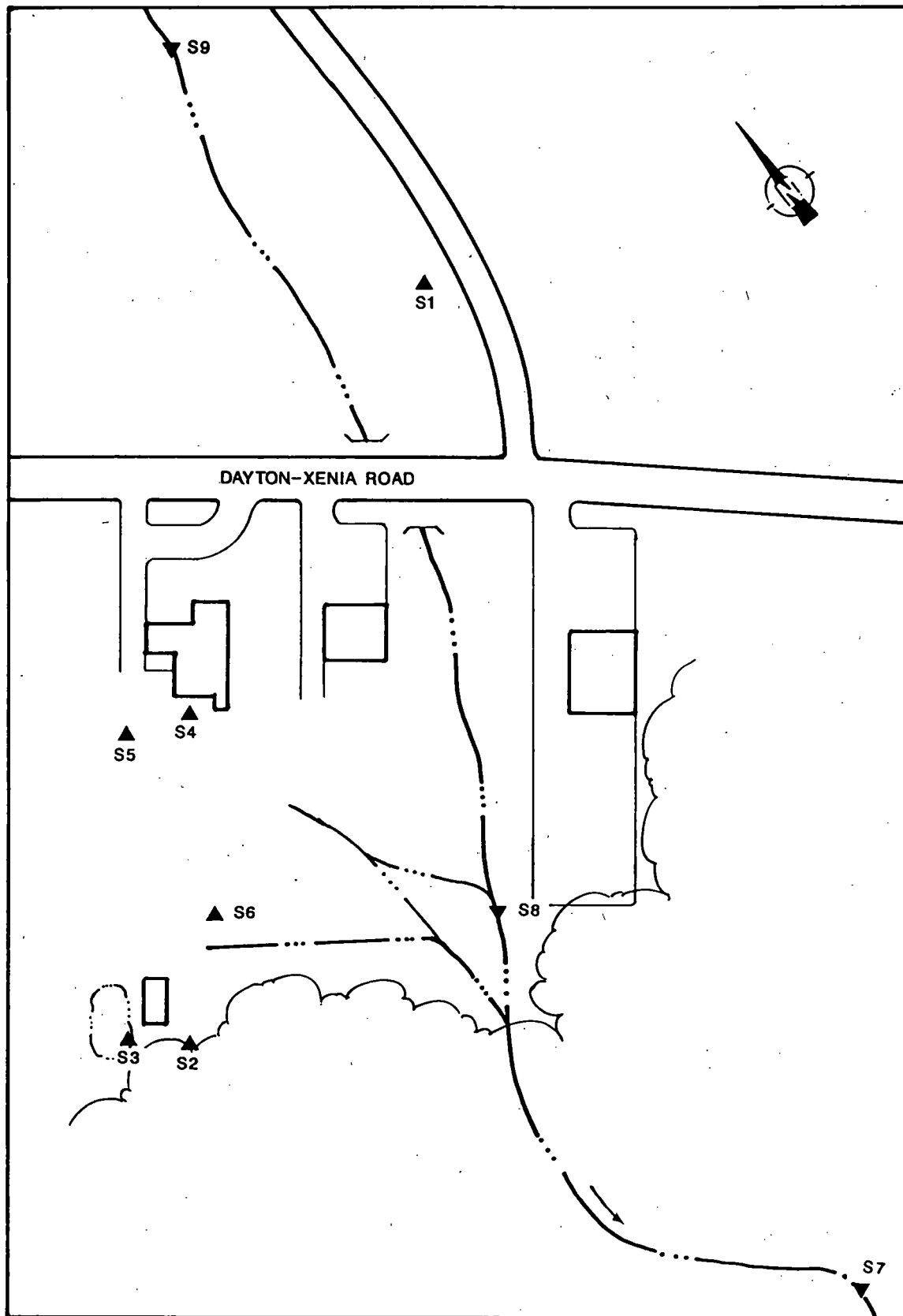


FIGURE 3-3 SOIL/SEDIMENT SAMPLING LOCATIONS

from the west corner of the shed, along the edge of the shallow pond. Sample S3 was collected at a depth of approximately 2 feet. The sample material consisted of black-clayey mud with organic matter. The OVA registered readings that deviated from background at the location. Soil samples S2 and S3 were collected to determine whether TCL compounds or TAL analytes were present in the vicinity of the shed.

Soil sample S4 was collected approximately 5 feet southwest of the house/facility. The sample was collected to determine whether TCL compounds or TAL analytes were present in the area where the dry cleaning unit had been located. Sample S4 was a grab sample collected at a depth of 0 to 6 inches. The sample material consisted of a brown clay loam. Soil sample S5 was collected approximately 30 feet west of the west corner of the house/facility. Sample S5 was a grab sample collected at a depth of 0 to 6 inches. The sample material was brown/gray in color and contained some gravel. Soil sample S5 was collected to determine whether TCL compounds or TAL analytes were present at this location. Soil sample S6 was collected approximately 100 feet southwest of the house/facility and 10 feet northeast of a drainage furrow. The sample was collected to determine whether TCL compounds or TAL analytes were present in the area of the drainage furrows. Sample S6 was a grab sample collected at a depth of 0 to 6 inches. The sample material was brown to black in color and consisted of clay, silt, and gravel.

Soil sample S1 was collected as a potential background sample from the northeast side of Dayton-Xenia Road, approximately 50 feet east of the tributary and approximately 125 feet east-northeast of the NGL site. The background sample was collected to determine the chemical composition of the soil in the area of the site. Sample S1 was a grab sample collected at a depth of 0 to 6 inches. The sample material was light brown clay.

Sample S7 was a sediment sample collected along the tributary at a location downstream of and approximately 290 feet directly south of the site. This sample was collected to determine whether TCL compounds or TAL analytes had migrated from the site. The sample was collected at a depth of 0 to 6 inches and consisted of sand. Sediment sample S8 was collected in the southeast portion of the WAEC property at a point of

entry of a drainage furrow into the tributary. Sample S8 was collected to determine whether TCL compounds or TAL analytes had migrated to the sediments of the tributary via the drainage furrow. The sample was collected at a depth of 0 to 6 inches and was a brown clay/sand mixture. Sediment sample S9 was a grab sample collected upstream of the site along the tributary, approximately 200 feet north of Dayton-Xenia Road. The sample was collected at a depth of 6 inches and consisted of sand. This sample was collected to determine the chemical characteristics of the sediments upstream from the site.

Each surface soil sample was obtained using a garden trowel. Sub-surface soil samples and sediment samples were collected using a post-hole digger. Sample material was transferred to a stainless steel bowl, then placed in sample bottles using the trowel or stainless steel spoons. The portion of each sample to be tested for VOCs was transferred directly from the sampling locations to sample bottles (E & E 1987).

Standard E & E decontamination procedures were adhered to during the collection of all soil/sediment samples. The procedures included the scrubbing of all equipment (e.g., spoons, trowels, bowls, and posthole digger) with a solution of detergent (Alconox) and distilled water, and triple-rinsing the equipment with distilled water before the collection of each sample (E & E 1987). All soil/sediment samples were packaged and shipped in accordance with U.S. EPA-required procedures.

As directed by U.S. EPA, all soil/sediment samples were analyzed using the U.S. EPA CLP.

4. ANALYTICAL RESULTS

This section presents results of the chemical analysis of FIT-collected monitoring well and soil/sediment samples for TCL compounds and TAL analytes. All samples were analyzed for volatile organics, semivolatile organics, pesticides/polychlorinated biphenyls (PCBs), metals, and cyanides. Complete chemical analysis results of FIT-collected monitoring well and soil/sediment samples are provided in Tables 4-1 and 4-2.

Quantitation/detection limits used in the analysis of monitoring well and soil/sediment samples are provided in Appendix D.

The analytical data for the chemical analysis of monitoring well and soil/sediment samples collected for this SSI have been reviewed by U.S. EPA for compliance with terms of CLP, and the review has been approved by U.S. EPA. The analytical data have also been reviewed by FIT for validity and usability. Any additions, deletions, or changes to the data have been incorporated in the chemical analysis results tables presented in this section.

Table 4-1
RESULTS OF CHEMICAL ANALYSIS OF
FIT-COLLECTED MONITORING WELL SAMPLES

Sample Collection Information and Parameters	<u>Sample Number</u>					
	MW1	MW2	Duplicate	MW3	MW4	Blank
Date	11/6/90	11/6/90	11/6/90	11/6/90	11/6/90	11/6/90
Time	1415	1530	1530	1515	1430	1500
CLP Organic Traffic Report Number	END62	END63	END64	END65	END66	END67
CLP Inorganic Traffic Report Number	MEMH42	MEMH43	MEMH44	MEMH45	MEMH46	MEMH47
Temperature (°C)	10	10	10	11	10	8
Specific Conductivity (μmhos/cm)	318	770	770	885	455	5.4
pH	7.02	7.08	7.08	7.06	7.02	6.99
<u>Compound Detected</u>						
(values in μg/L)						
<u>Semivolatile Organics</u>						
diethylphthalate	—	—	—	4J	—	—
<u>Analyte Detected</u>						
(values in μg/L)						
aluminum	—	26.5BJ	—	—	—	68.5B
arsenic	202	—	—	—	11.4	—
barium	222	260	261	282	299	—
cadmium	—	2.2B	—	—	—	—
calcium	59,800	105,000	108,000	95,200	100,000	562B
copper	3.6B	3.9B	5.3B	5.2B	1.9B	4.8B
iron	666J	553J	748J	290J	1,860J	188J
lead	1.3BWJ	2.1BWJ	1.3BWJ	2.4BWJ	1.9BWJ	—
magnesium	26,200	38,700	38,500	36,100	35,700	—
manganese	339	142	146	60.5	134	—
mercury	—	—	0.28	—	—	—

Taable 4-1 (Cont.)

Sample Collection Information and Parameters	Sample Number					
	MW1	MW2	Duplicate	MW3	MW4	Blank
nickel	—	4.3BJ	4BJ	5.5BJ	—	8B
potassium	1,520B	1,560B	1,640B	1,450B	2,600B	—
sodium	23,900EJ	22,700EJ	22,700EJ	12,300EJ	20,400EJ	—
zinc	15.7BNJ	18.3BNJ	11.4BNJ	19.2BNJ	62.8NJ	3.4BNJ

— Not detected.

COMPOUND QUALIFIER	DEFINITION	INTERPRETATION
J	Indicates an estimated value.	Compound value may be semiquantitative.

ANALYTE QUALIFIERS	DEFINITION	INTERPRETATION
E	Estimated or not reported due to interference. See laboratory narrative.	Analyte or element was not detected, or value may be semiquantitative.
N	Spike recoveries outside QC protocols, which indicates a possible matrix problem. Data may be biased high or low. See spike results and laboratory narrative.	Value may be quantitative or semi-quantitative.
B	Value is real, but is above instrument DL and below CRDL.	Value may be quantitative or semi-quantitative.
J	Value is above CRDL and is an estimated value because of a QC protocol.	Value may be semiquantitative.
W	Post-digestion spike for furnace AA analysis is out of control limits (35-115%), while sample absorbance is <50% of spike absorbance.	Value may be semiquantitative.

Table 4-2
RESULTS OF CHEMICAL ANALYSIS OF
FIT-COLLECTED SOIL/SEDIMENT SAMPLES

Sample Collection Information and Parameters	S1	S2	S3	S4	Sample Number S5	S6	S7	S8	S9
Date	11/7/90	11/7/90	11/7/90	11/7/90	11/7/90	11/7/90	11/7/90	11/7/90	11/7/90
Time	1150	1015	1015	1025	1040	1040	1100	1110	1140
CLP Organic Traffic Report Number	END51	END52	END53	END54	END55	END56	END57	END58	END59
CLP Inorganic Traffic Report Number	MEMH31	MEMH32	MEMH33	MEMH34	MEMH35	MEMH36	MEMH37	MEMH38	MEMH39
<u>Compound Detected</u> (values in µg/kg)									
<u>Volatile Organics</u>									
acetone	71	1,400	920	9J	34	31	15	65	6J
2-butanone (MEK)	--	290	210	--	--	--	--	--	--
tetrachloroethene	--	--	--	490	4J	5J	--	--	--
<u>Semivolatile Organics</u>									
phenanthrene	--	--	--	--	--	--	120J	98J	--
fluoranthene	170J	--	--	--	--	120J	180J	220J	--
pyrene	140J	--	--	--	--	100J	190J	210J	--
butylbenzylphthalate	--	--	--	330J	--	--	--	--	--
chrysene	--	--	--	--	--	110J	160J	--	--
bis(2-ethylhexyl)phthalate	--	320J	--	--	560J	--	--	--	--
benzo[b]fluoranthene	140J	--	--	--	--	98J	110J	150J	--
benzo[a]pyrene	--	--	--	--	--	--	92J	95J	--
<u>Analyte Detected</u> (values in mg/kg)									
aluminum	10,400EJ	1,190EJ	3,010EJ	7,040EJ	505EJ	2,950EJ	1,630EJ	3,300EJ	2,250EJ
arsenic	17.3	12.6	10.6	7.3	2.2	11.1	5	11.1	15
barium	113EJ	230EJ	186EJ	102EJ	11.4EJ	58.2EJ	23.5EJ	43.1EJ	46.1EJ
beryllium	0.74B	--	0.4B	0.54B	0.28B	0.38B	--	0.34B	0.3B
cadmium	--	--	0.45EJ	0.32EJ	1.5J	0.62EJ	--	--	--
calcium	29,800EAJ	146,000EAJ	179,000EAJ	44,600EAJ	150,000EAJ	75,600EAJ	32,000EAJ	44,400EAJ	29,500EAJ
chromium	17.3	4.7B	5.3	18.8	9.3	7.7	7	10.1	8.6
cobalt	8.8B	--	1.7B	4.2B	1.2B	3.7B	3.1B	4.7B	6.3B
copper	32	26.8	27.3	32.9	25	33.2	11	16.6	12.9
iron	22,300EJ	5,190EJ	3,960EJ	15,100EJ	3,790EJ	8,840EJ	7,340EJ	10,300EJ	12,000EJ
lead	21.6	18.2	3.2	72.9	23.5	11.3	8	20.7	8.6
magnesium	15,700EJ	4,370EJ	7,380EJ	15,200EJ	80,100EJ	19,000EJ	12,000EJ	16,800EJ	9,190EJ
manganese	539	169	91.2	279	143	260	233	247	533
mercury	--	--	--	0.14	0.13	--	--	--	--
nickel	25.6	4.9EJ	5.4EJ	13.4	4.7B	8.4B	7.5B	12.8B	11.6
potassium	869B	--	214B	1,250	129B	393B	114B	312B	195B

Table 4-2 (Cont.)

Sample Collection Information and Parameters	Sample Number								
	S1	S2	S3	S4	S5	S6	S7	S8	S9
silver	--	--	--	--	0.85BNJ	--	--	--	--
sodium	--	--	--	--	143B	--	--	--	--
thallium	0.52B	--	--	--	--	--	--	--	--
vanadium	23	2.9B	4.4B	14.4	3.2B	8.6B	7.7B	10.4B	10.6B
zinc	57.7EJ	29.1EJ	15.5EJ	97EJ	21.5EJ	35.4EJ	21.8EJ	54.6EJ	56.2EJ

-- Not detected.

COMPOUND QUALIFIER

DEFINITION

INTERPRETATION

J

Indicates an estimated value.

Compound value may be semiquantitative.

ANALYTE QUALIFIERS

DEFINITION

INTERPRETATION

E

Estimated or not reported due to interference. See laboratory narrative.

Analyte or element was not detected, or value may be semiquantitative.

N

Spike recoveries outside QC protocols, which indicates a possible matrix problem. Data may be biased high or low. See spike results and laboratory narrative.

Value may be quantitative or semiquantitative.

A

Duplicate value outside QC protocols which indicates a possible matrix problem.

Value may be quantitative or semiquantitative.

B

Value is real, but is above instrument DL and below CRDL.

Value may be quantitative or semiquantitative.

DL is estimated because of a QC protocol. DL is possibly above or below CRDL.

Compound or element was not detected.

J

Value is above CRDL and is an estimated value because of a QC protocol.

Value may be semiquantitative.

5. DISCUSSION OF MIGRATION PATHWAYS

5.1 INTRODUCTION

This section presents discussions of data and information pertaining to potential migration pathways and targets of TCL compounds and TAL analytes that are possibly attributable to the NGL site.

The five migration pathways of concern discussed are groundwater, surface water, air, fire and explosion, and direct contact.

5.2 GROUNDWATER

One TCL compound, diethylphthalate, was detected at 4J $\mu\text{g/L}$ in well MW3, and several TAL analytes, including barium at 299 $\mu\text{g/L}$ in well MW4, manganese at 339 $\mu\text{g/L}$ in well MW1, and zinc at 62.8NJ $\mu\text{g/L}$ in well MW4, were detected in the monitoring well samples collected from the WAEC property. However, because no upgradient well sample was collected, and because zinc and barium are considered common constituents of the soil and water of the area of the site, these TCL compounds and TAL analytes cannot be attributed to the site.

Several TCL compounds and TAL analytes were detected above background concentrations in the soil samples collected from the site. Acetone was detected at 1,400 $\mu\text{g/kg}$ in sample S2 and at 920 $\mu\text{g/kg}$ in soil sample S3; 2-butanone (MEK) was detected in sample S2 at 290 $\mu\text{g/kg}$; tetrachloroethene was detected in sample S4 at 490 $\mu\text{g/kg}$; mercury was detected in sample S4 at 0.14 mg/kg and at 0.13 mg/kg in sample S5; butylbenzylphthalate was detected in sample S4 at 330J $\mu\text{g/kg}$; and bis(2-ethylhexyl)phthalate was detected in sample S5 at 560J $\mu\text{g/kg}$.

Of the TCL compounds and TAL analytes detected in on-site soil samples, tetrachloroethene may be attributed to the site because it was used in on-site operations (Renkowski and Springer 1986).

A potential does exist for TCL compounds and TAL analytes detected on-site to migrate to groundwater, based on the following information:

- TCL compounds and TAL analytes were detected in on-site soil samples.
- Liquid wastes were deposited on-site (Stewart 1991; Renkowski and Springer 1986).
- There are no waste containment structures on-site.
- The depth to the water table is as shallow as 3 feet beneath the site (Kenoyer et al. 1988).

The potential for TCL compounds and TAL analytes to migrate from the site to groundwater is also affected by the geology in the area of the site.

The stratigraphy beneath the site and the WAEC property, where the monitoring wells are located, consists 2 feet of topsoil underlain by 1 foot of cobbles and silty sand. A peat layer begins near the southwest edge of the site and thickens to approximately 3 feet as the topographic surface lowers. The unit underlying the peat consists of a heterogeneous mixture of sand with interbedded silt and clay lenses. This sand contains an unconfined aquifer that ranges from 17 feet to 32 feet in thickness beneath the WAEC property and regionally to a depth up to 80 feet (Kenoyer et al. 1988; U.S. EPA 1986). The sand, cobbles, and silty sand that underlie the topsoil and peat were probably deposited in a meandering, or possibly braided, stream environment (Kenoyer et al. 1988).

Underlying the sand aquifer is a gray silty clay, the surface of which slopes downward to the northeast from a depth of 17 feet near well MW2 to 32 feet near well MW1. This gray silty clay is underlain by a deeper aquifer composed of medium sand with occasional silt lenses.

Strong artesian pressure results from the confinement of the lower aquifer with water production in pumping wells reaching as high as 100 gallons per minute.

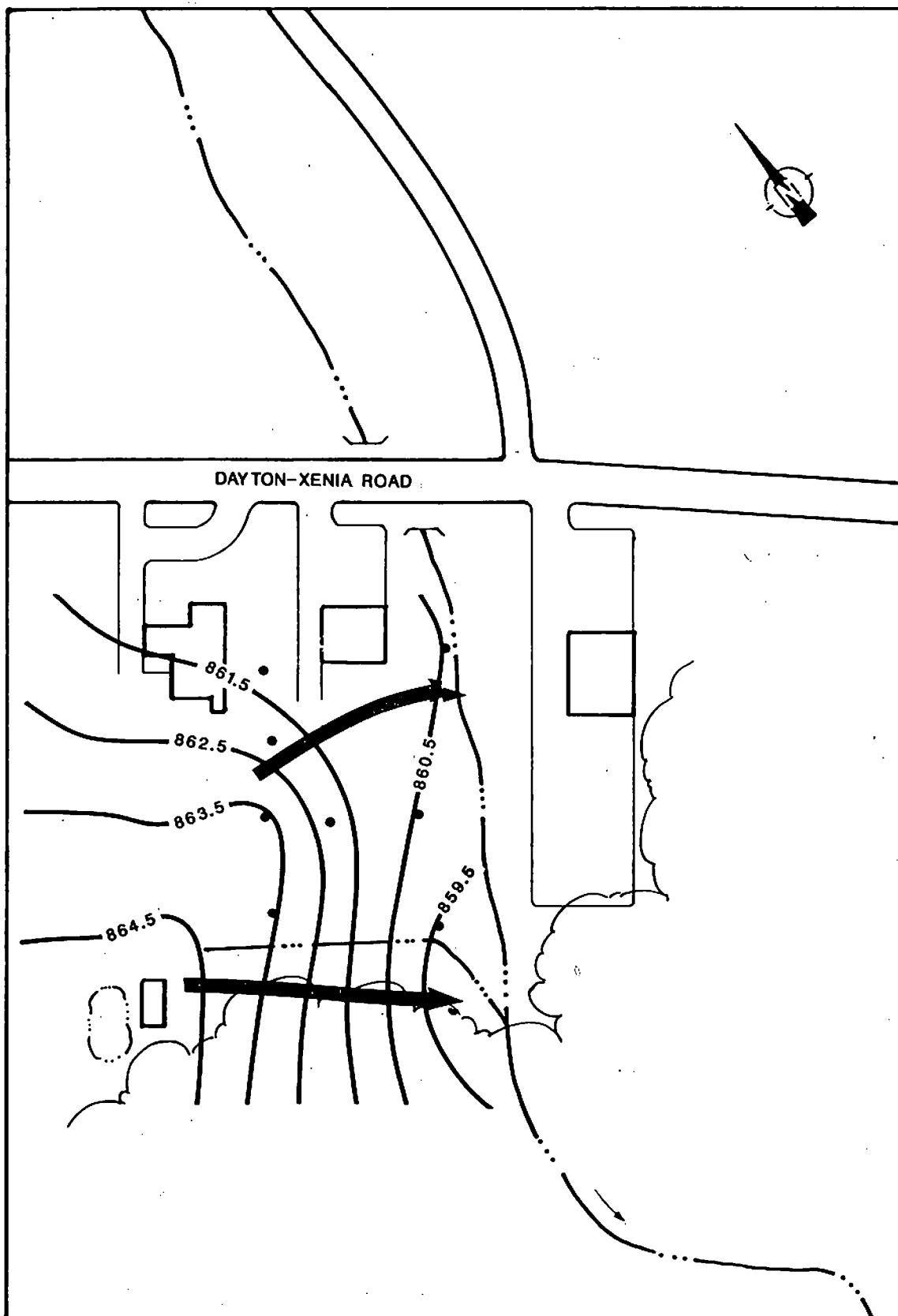
Beneath the WAEC property, this second aquifer ranges in depth from 42 feet to 55 feet. The layer that underlies the lower aquifer is unconsolidated glacial drift composed of silt and clay. While the glacial drift is of unknown thickness beneath the WAEC property, it can extend to a depth of 292 feet below the surface in some areas of Beavercreek Township. The glacial drift lies unconformably over bedrock of Richmond and Mayesville units of Ordovician limestone and shale (Kenoyer et al. 1988; Stanely 1988; U.S. EPA 1986).

Although a confining layer exists between the upper and lower aquifers beneath the WAEC property and the site, the two aquifers are hydraulically connected beyond this area (Shaw, Weiss, and DeNaples 1989).

The dip of the interbedded shale and limestone bedrock is gradual to the south-southeast. It is believed that the general flow of groundwater follows the dip of the bedrock in both the upper and lower aquifers. In addition, the flow of groundwater in the upper aquifer is influenced by the easterly flow of Little Beaver Creek (U.S. EPA 1986). Beneath the site and the monitoring wells on the WAEC property, the groundwater flow of the upper aquifer differs slightly and is oriented in an easterly direction toward the tributary (see Figure 5-1 for piezometric map) (Stanely 1988).

The potential targets of groundwater contamination include approximately 20,277 persons. This estimate includes persons who draw water from residential wells, completed in both the upper and lower aquifers, within a 3-mile radius of the site. This estimate also includes persons who receive municipal water in the Beavercreek area. The Beavercreek municipal well fields are within 2 1/2 miles of the site and are finished in the sand of the lower aquifer at a depth of 100 feet (Johnson 1991; Mutterstaw 1991).

The target population estimate was determined by counting houses on United States Geological Survey (USGS) topographic maps (USGS 1965, 1965a) and multiplying that number by the 1980 Census average of 2.88 persons-per-household for Green County, Ohio (U.S. Bureau of the Census 1982). The remaining population was determined by using a planimeter to



SOURCE: Stanely, 1988.

SCALE
0 50 100 150 200 FEET

FIGURE 5-1 PIEZOMETRIC MAP

account for the urban areas of Beavercreek within the 3-mile radius and municipal water service boundaries. The persons living within the 3-mile radius who receive water from Dayton municipal wells are not included because the Dayton wells lie outside of the 3-mile radius of the site.

5.3 SURFACE WATER

The surface water body that is most likely to be affected by the migration of TCL compounds and TAL analytes from the site is Little Beaver Creek. The creek is 2,100 feet south of the site and has a tributary that passes within approximately 150 feet east of the site. No surface water samples were collected during the FIT SSI of the NGL site; however, a potential does exist for TCL compounds and TAL analytes to migrate to Little Beaver Creek from site surface soils, based on the following information.

- TCL compounds and TAL analytes were detected at above background concentrations in soil samples collected from the Nu-Glo site, and TCL compounds were detected in the sediment samples collected from the tributary to Little Beaver Creek at higher concentrations in the downstream sample than corresponding concentrations in the upstream sample.
- Drainage furrows extend from the site to the tributary.
- The site slopes toward the tributary (USGS 1965).
- There is nothing on-site to prevent the migration of TCL compounds or TAL analytes through surface water runoff.

Because there are no surface water intakes within 3-miles downstream of the site (Thomas 1991), there is no surface water target population. While Little Beaver Creek is not used for any type of recreation (Leiwig 1991), it does flow by Zimmerman State Nature Preserve, which is located approximately 1/2 mile southeast of the site (Holtzman 1991).

5.4 AIR

A release of TCL compounds or TAL analytes to the air was not documented during the SSI of the NGL site. During the reconnaissance inspection, FIT site-entry instruments (oxygen meter, explosimeter, radiation monitor, and colorimetric monitoring tubes for hydrogen cyanide) did not detect levels above background concentrations at the site on November 6, 1990. However, during subsurface soil sampling on November 7, 1990, the HNu detected organic vapors that deviated from background levels. The readings of the HNu in the breathing zone did not deviate from the background readings.

A potential does not exist for TCL compounds and TAL analytes to migrate from the site via windblown particulates. The site is heavily vegetated and the soil is not exposed. Further air monitoring was not conducted by FIT.

5.5 FIRE AND EXPLOSION

According to federal, state, and local file information reviewed by FIT and an interview with Kip Smith, Assistant Fire Chief, Beavercreek Fire Department (Smith 1990), no documentation exists of an incident of fire or explosion at the site. According to FIT observations and site-entry equipment readings, no potential for fire or explosion existed at the site at the time of the SSI.

5.6 DIRECT CONTACT

According to federal, state, and local information reviewed by FIT, observations made during the SSI, and the interviews with the site representative, no incidents of direct contact with TCL compounds or TAL analytes at the NGL site have been documented.

Although no incidents of direct contact with TCL compounds and TAL analytes have been documented, a potential does exist for direct contact to occur at the site, based on the following information.

- TCL compounds and TAL analytes were detected in the soil samples collected on-site.

- The site has no fence or other confining feature to limit public access.

The population within a 1-mile radius of the site potentially affected through direct contact with TCL compounds and TAL analytes at the site is approximately 4,000 persons. This population was calculated by counting houses within a 1-mile radius of the site on a USGS topographic map (USGS 1965a) and multiplying this number by a persons-per-household value of 2.88 (U.S. Bureau of the Census 1982).

6. REFERENCES

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6789:3

APPENDIX A

SITE 4-MILE RADIUS MAP

APPENDIX B

U.S. EPA FORM 2070-13



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 1 - SITE LOCATION AND INSPECTION INFORMATION

I. IDENTIFICATION

01 STATE OH 02 SITE NUMBER 004248613

II. SITE NAME AND LOCATION

01 SITE NAME (If agent, contractor, or descriptive name of site) Nu-Glo Laboratory		02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER 3465 Dayton-Xenia Road			
03 CITY Dayton	04 STATE OH	05 ZIP CODE 45432	06 COUNTY Greene	07 COUNTY CODE 113	08 CONG DIST 07
09 COORDINATES LATITUDE 39° 43' 21.5" N LONGITUDE 084° 03' 49.5" W		10 TYPE OF OWNERSHIP (Check one) <input checked="" type="checkbox"/> A. PRIVATE <input type="checkbox"/> B. FEDERAL <input type="checkbox"/> C. STATE <input type="checkbox"/> D. COUNTY <input type="checkbox"/> E. MUNICIPAL <input type="checkbox"/> F. OTHER <input type="checkbox"/> G. UNKNOWN			

III. INSPECTION INFORMATION

01 DATE OF INSPECTION 11-7-90 11.6.90 MONTH DAY YEAR	02 SITE STATUS <input type="checkbox"/> ACTIVE <input checked="" type="checkbox"/> INACTIVE	03 YEARS OF OPERATION 1963 - 1985 BEGINNING YEAR ENDING YEAR
04 AGENCY PERFORMING INSPECTION (Check all that apply) <input type="checkbox"/> A. EPA <input checked="" type="checkbox"/> B. EPA CONTRACTOR Ecology + Environment, Inc. <input type="checkbox"/> C. MUNICIPAL <input type="checkbox"/> D. MUNICIPAL CONTRACTOR <input type="checkbox"/> E. STATE <input type="checkbox"/> F. STATE CONTRACTOR <input type="checkbox"/> G. OTHER		

05 CHIEF INSPECTOR	06 TITLE	07 ORGANIZATION	08 TELEPHONE NO.
Julie Visser	Community Health Specialist	E+E, Inc.	912/663-9415
Tim Panzer	"Geographer"	Same	() Same
Jackie Sullivan	Community Health Specialist	Same	() Same
Jeff Taylor	Biologist	Same	() Same
Karen Sadler	Biologist	Same	() Same
			()

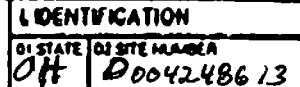
09 OTHER INSPECTORS	10 TITLE	11 ORGANIZATION	12 TELEPHONE NO.

13 SITE REPRESENTATIVES INTERVIEWED	14 TITLE	15 ADDRESS	16 TELEPHONE NO.
Rita Stewart	General Manager	1328 Borne H, Xenia OH	673/372-7718
(Rita Stewart was interviewed on March 4 and 7, 1991 by telephone. No one from Nu-Glo was available for interview during the SSI.)			()
			()
			()
			()
			()

17 ACCESS GAINED BY <input checked="" type="checkbox"/> PERMISSION <input type="checkbox"/> WARRANT	18 TIME OF INSPECTION 8:30 am 11-6-91 9:30 am 11-7-91	19 WEATHER CONDITIONS Cloudy ~45° F
---	---	--

IV. INFORMATION AVAILABLE FROM

01 CONTACT Mark A. Lehar	02 OF Agency/Organization Ohio EPA Southwest District	03 TELEPHONE NO. (513) 285-6057
04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM Tim Tompke	05 AGENCY U.S. EPA FIT	06 ORGANIZATION Ecology and Environment Inc. (312) 663-9415
	07 TELEPHONE NO. (312) 663-9415	08 DATE 4.5.91 MONTH DAY YEAR



Q3 WASTE CHARACTERISTICS (check all that apply)

<input checked="" type="checkbox"/> A TOXIC	<input type="checkbox"/> E SOLUBLE	<input type="checkbox"/> I HIGHLY VOLATILE
<input type="checkbox"/> B CORROSIVE	<input type="checkbox"/> F INFECTIOUS	<input type="checkbox"/> J EXPLOSIVE
<input type="checkbox"/> C RADIOACTIVE	<input type="checkbox"/> G FLAMMABLE	<input type="checkbox"/> K REACTIVE
<input type="checkbox"/> D PERSISTENT	<input type="checkbox"/> H EASY TO BLEND	<input type="checkbox"/> L INCOMPATIBLE
		<input type="checkbox"/> M NOT APPLICABLE

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS Numbers)

V. FEEDSTOCKS AND RELATION TO GAS PRICING

VL SOURCES OF INFORMATION (See separate references p. 1. Only the source of information is to be listed.)

1946-1947



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

L IDENTIFICATION

01 STATE 02 SITE NUMBER
OH 0004248613

B. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☒ A. GROUNDWATER CONTAMINATION 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 29,277 04 NARRATIVE DESCRIPTION

See Section 5.2 for groundwater information.

01 ☐ B. SURFACE WATER CONTAMINATION 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 0 04 NARRATIVE DESCRIPTION

See Subsection 5.3 for surface water information.

01 ☐ C. CONTAMINATION OF AIR 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 0 04 NARRATIVE DESCRIPTION

N/A See subsection 5.4 for Air information.

01 ☐ D. FIRE/EXPLOSIVE CONDITIONS 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 0 04 NARRATIVE DESCRIPTION

See Subsection 5.5 for Fire and Explosion information.

01 ☒ E. DIRECT CONTACT 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 2906 04 NARRATIVE DESCRIPTION

See Subsection 5.6 for Direct Contact information.

01 ☒ F. CONTAMINATION OF SOIL 02 ☒ OBSERVED (DATE: 11-7-91) ☐ POTENTIAL ☐ ALLEGED
03 AREA POTENTIALLY AFFECTED: ~0.7 04 NARRATIVE DESCRIPTION
(Acres)

See Section 4 and subsection 5.2 and 5.3 for information.

01 ☒ G. DRINKING WATER CONTAMINATION 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 29,277 04 NARRATIVE DESCRIPTION

See Subsection 5.2 for Drinking water information.

01 ☐ H. WORKER EXPOSURE/INJURY 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 WORKERS POTENTIALLY AFFECTED: 0 04 NARRATIVE DESCRIPTION

None documented in FIT files.

01 ☒ I. POPULATION EXPOSURE/INJURY 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 29,277 04 NARRATIVE DESCRIPTION

A potential exists through ground water pathway. Also, see Section A and E above.



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
OH 004248613

II. HAZARDOUS CONDITIONS AND INCIDENTS *Continued*

01 ☒ J. DAMAGE TO FLORA
04 NARRATIVE DESCRIPTION

02 ☒ OBSERVED (DATE: 6-24-85)

☐ POTENTIAL

☐ ALLEGED

See Subsection 2.3 of Narrative.

01 ☒ K. DAMAGE TO FAUNA
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☒ POTENTIAL

☐ ALLEGED

Nu-Glo Laboratory is bordered by a wooded marsh which is probably inhabited by various animals; with no fence securing Nu-Glo, animal populations from the wooded marsh may have direct access to the site and its contaminants.

01 ☒ L. CONTAMINATION OF FOOD CHAIN
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☒ POTENTIAL

☐ ALLEGED

See K above; Also, a tributary of Little Beaver Creek runs ~150 feet from the site and provides a direct link to the aquatic food chain of Beaver Creek.

01 ☐ M. UNSTABLE CONTAINMENT OF WASTES

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: 0

04 NARRATIVE DESCRIPTION

None observed by FIT.

01 ☒ N. DAMAGE TO OFFSITE PROPERTY

02 ☐ OBSERVED (DATE: _____)

☒ POTENTIAL

☐ ALLEGED

Drainage ditches stretch from Nu-Glo across William Anthony Engraving Company's property to the tributary of the Little Beaver Creek. Sediments taken on edge of W.A.E.C. show TC compounds and TAL analytes. See Table 4-1 also see Subsection 2.3 of the Narrative.

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

04 NARRATIVE DESCRIPTION

None observed by FIT and none is documented in FIT files.

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

04 NARRATIVE DESCRIPTION

None observed or documented in FIT Files.

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

None known

III. TOTAL POPULATION POTENTIALLY AFFECTED: _____

20,277

IV. COMMENTS

The persons at risk are within a 3 mile radius of the site who use residential wells finished in the upper aquifer. Since the number of persons drawing from the upper aquifer vs. the lower confined aquifer is not known, all residential well users were included in the population count of the upper aquifer.

V. SOURCES OF INFORMATION

*Screening Site Inspection Report Narrative, and E&E
FIT Region II Files - Chicago, IL for Nu-Glo Laboratory
SSIR EPA ID # OH 004248613*



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION
PART 4 - PERMIT AND DESCRIPTIVE INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
OH	0004248613

II. PERMIT INFORMATION

01 TYPE OF PERMIT ISSUED (Check all that apply)	02 PERMIT NUMBER	03 DATE ISSUED	04 EXPIRATION DATE	05 COMMENTS
<input type="checkbox"/> A. NPDES				
<input type="checkbox"/> B. UNC				
<input type="checkbox"/> C. AIR				
<input type="checkbox"/> D. RCRA				
<input type="checkbox"/> E. RCRA INTERIM STATUS				
<input type="checkbox"/> F. SPOC PLAN				
<input type="checkbox"/> G. STATE (Specify)				
<input type="checkbox"/> H. LOCAL (Specify)				
<input type="checkbox"/> I. OTHER (Specify)				
<input checked="" type="checkbox"/> J. NONE				

III. SITE DESCRIPTION

01 STORAGE/ DISPOSAL (Check all that apply)	02 AMOUNT	03 UNIT OF MEASURE	04 TREATMENT (Check all that apply)	05 OTHER
<input type="checkbox"/> A. SURFACE IMPOUNDMENT			<input type="checkbox"/> A. INCINERATION	<input checked="" type="checkbox"/> A. BUILDINGS ON SITE
<input type="checkbox"/> B. PILES			<input type="checkbox"/> B. UNDERGROUND INJECTION	
<input type="checkbox"/> C. DRUMS, ABOVE GROUND			<input type="checkbox"/> C. CHEMICAL/PHYSICAL	
<input type="checkbox"/> D. TANK, ABOVE GROUND			<input type="checkbox"/> D. BIOLOGICAL	
<input type="checkbox"/> E. TANK, BELOW GROUND			<input type="checkbox"/> E. WASTE OIL PROCESSING	
<input type="checkbox"/> F. LANDFILL			<input type="checkbox"/> F. SOLVENT RECOVERY	
<input type="checkbox"/> G. LANDFARM			<input type="checkbox"/> G. OTHER RECYCLING/RECOVERY	
<input type="checkbox"/> H. OPEN DUMP			<input checked="" type="checkbox"/> H. OTHER <u>N/A</u> (Specify)	
<input checked="" type="checkbox"/> I. OTHER <u>No on-site storage detected by FIT.</u> (Specify)				

07 COMMENTS

No wastes are currently stored on site, chemical wastes detected, were from soil/sediment samples. Several empty barrels were located at the southwest edge of the No-Glo main building. Chemicals were stored on site in the past, however.

IV. CONTAINMENT

01 CONTAINMENT OF WASTES (Check one)
<input type="checkbox"/> A. ADEQUATE, SECURE <input type="checkbox"/> B. MODERATE <input type="checkbox"/> C. INADEQUATE, POOR <input checked="" type="checkbox"/> D. INSECURE, UNSOUND, DANGEROUS

02 DESCRIPTION OF DRUMS, Diking, LINERS, BARRIERS, ETC.

There are no liners, barriers, or dikes present at the No-Glo site.

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
02 COMMENTS The site is not secured by a fence and is located adjacent to a business/residential district.

VI. SOURCES OF INFORMATION (Can specify references, e.g. state files, company records, etc.)

E. & E. FIT Region II files, Chicago, IL



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION
01 STATE 02 SITE NUMBER
014 0004248613

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY (Check as applicable)		02 STATUS			03 DISTANCE TO SITE
SURFACE WELL		ENDANGERED AFFECTED MONITORED			
COMMUNITY	A <input type="checkbox"/> B <input checked="" type="checkbox"/>	A <input type="checkbox"/> B <input type="checkbox"/> C <input checked="" type="checkbox"/>	A <u>~2</u> (mi)		
NON-COMMUNITY	C <input type="checkbox"/> D <input checked="" type="checkbox"/>	D <input checked="" type="checkbox"/> E <input type="checkbox"/> F <input type="checkbox"/>	B <u>0.32</u> (mi)		

III. GROUNDWATER

01 GROUNDWATER USE IN VICINITY (Check one)

☒ A. ONLY SOURCE FOR DRINKING ☐ B. DRINKING
(Other sources available)
COMMERCIAL, INDUSTRIAL, IRRIGATION
(No other water sources available) ☐ C. COMMERCIAL, INDUSTRIAL, IRRIGATION
(Limited other sources available) ☐ D. NOT USED, UNUSEABLE

02 POPULATION SERVED BY GROUND WATER <u>~20,277</u>	03 DISTANCE TO NEAREST DRINKING WATER WELL <u>2000 ft</u> (mi)		
04 DEPTH TO GROUNDWATER <u>~3</u> (ft)	05 DIRECTION OF GROUNDWATER FLOW <u>South-Southeast</u>	06 DEPTH TO AQUIFER OF CONCERN <u>3</u> (ft)	07 POTENTIAL YIELD OF AQUIFER <u>Intermittent (gpd)</u>
08 SOLE SOURCE AQUIFER <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			

09 DESCRIPTION OF WELLS (including sitings, depths, and location relative to population and buildings)

see section 5.2 of Narrative
also see Appendix E of SSIR.

10 RECHARGE AREA <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	COMMENTS <u>Groundwater is recharged by precipitation & percolation</u>	11 DISCHARGE AREA <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	COMMENTS <u>Local surface water bodies may act as discharge area through effluent seepage</u>
---	---	--	---

IV. SURFACE WATER

01 SURFACE WATER USE (Check one)

☐ A. RESERVOIR, RECREATION, DRINKING WATER SOURCE ☐ B. IRRIGATION, ECONOMICALLY IMPORTANT RESOURCES ☐ C. COMMERCIAL, INDUSTRIAL ☒ D. NOT CURRENTLY USED

02 AFFECTED/POTENTIALLY AFFECTED BODIES OF WATER

NAME:	AFFECTED	DISTANCE TO SITE
<u>Little Beaver Creek</u>	<input type="checkbox"/>	<u>~1/2</u> (mi)
<u>tributary of Little Beaver Creek</u>	<input type="checkbox"/>	<u><.03</u> (mi)
	<input type="checkbox"/>	(mi)

V. DEMOGRAPHIC AND PROPERTY INFORMATION

01 TOTAL POPULATION WITHIN			02 DISTANCE TO NEAREST POPULATION
ONE (1) MILE OF SITE A <u>2906</u> NO OF PERSONS	TWO (2) MILES OF SITE B <u>9927</u> NO OF PERSONS	THREE (3) MILES OF SITE C <u>20,277</u> NO OF PERSONS	<u>~0.005</u> (mi)

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE <u>>1200</u> (densely populated area)	04 DISTANCE TO NEAREST OFF-SITE BUILDING <u>~0.005</u> (mi)
---	--

05 POPULATION WITHIN VICINITY OF SITE (Provide narrative description of nature of population within vicinity of site, e.g., rural village, densely populated urban area)

See Sections 2 and 3 of SSIR.



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I IDENTIFICATION

01 STATE 02 SITE NUMBER

04 04248613

VI ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE (Check one)

☐ A. $10^{-4} - 10^{-6}$ cm/sec ☒ B. $10^{-4} - 10^{-6}$ cm/sec ☐ C. $10^{-4} - 10^{-3}$ cm/sec ☐ D. GREATER THAN 10^{-3} cm/sec

02 PERMEABILITY OF BEDROCK (Check one)

☐ A. IMPERMEABLE (Less than 10^{-8} cm/sec) ☒ B. RELATIVELY IMPERMEABLE ($10^{-8} - 10^{-6}$ cm/sec) ☐ C. RELATIVELY PERMEABLE ($10^{-6} - 10^{-4}$ cm/sec) ☐ D. VERY PERMEABLE (Greater than 10^{-2} cm/sec)

03 DEPTH TO BEDROCK

> 300 (m)

04 DEPTH OF CONTAMINATED SOIL ZONE

unknown (m)

05 SOIL pH

unknown

06 NET PRECIPITATION

~ 6 (in)

07 ONE YEAR 24 HOUR RAINFALL

~ 2.5 (in)

08 SLOPE
SITE SLOPE

3-5 %

DIRECTION OF SITE SLOPE

South

TERRAIN AVERAGE SLOPE

~ 10 %

09 FLOOD POTENTIAL

SITE IS IN 100 YEAR FLOODPLAIN

10

☐ SITE IS ON BARRIER ISLAND, COASTAL HIGH HAZARD AREA, RIVERINE FLOODWAY

N/A

11 DISTANCE TO WETLANDS (500 ft minimum)

ESTUARINE

A. N/A (mi)

OTHER

B. UNKNOWN (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species)

N/A (mi)

ENDANGERED SPECIES: N/A

13 LAND USE IN VICINITY

DISTANCE TO:

COMMERCIAL/INDUSTRIAL

A. 0.05 (mi)

RESIDENTIAL AREAS, NATIONAL/STATE PARKS,
FORESTS, OR WILDLIFE RESERVES

B. ~ 0.09 (mi)

AGRICULTURAL LANDS
PRIME AG LAND AG LAND

C. unknown (mi) D. ~ 2 (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

See Appendix A

VII SOURCES OF INFORMATION (List specific references, e.g., data files, survey analysis, reports)

E & E F + S file information
Region II - Chicago
E & E, Inc. November 6 & 7, 1990 Survey Site Inspection.



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 8 - SAMPLE AND FIELD INFORMATION

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
OH 1004248613

II. SAMPLES TAKEN

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER (organic)	6	Wadsworth/Hart Laboratories 4001 Shuffel Dr, NW North Canton, OH 44720	Now
Ground SURFACE WATER (inorganic)	6	Betz Laboratories 9667 Grogans Mill Road The Woodlands, TX 77380	Now
WASTE			
AIR			
RUNOFF			
SPILL			
SOIL (organic)	9	Wadsworth/Hart Lab. 4101 Shuffel Dr NW North Canton, OH 44720	Now
VEGETATION			
OTHER Soil/Sediment (inorganic)	9	Betz Laboratories 9667 Grogans Mill Rd. The Woodlands, TX 77380	Now

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS
HNU-photometer	20ppm deep soil sample - Level C" probe for deep sampling.
Oxygen meter	All readings are within normal range.
Explosimeter	No readings above background
Radiation Meter	No readings above background
HCN detector tube	No color change indicated.

IV. PHOTOGRAPHS AND MAPS

01 TYPE <input type="checkbox"/> GROUND <input type="checkbox"/> AERIAL	02 IN CUSTODY OF _____ (Name of organization or individual)
03 MAPS <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	04 LOCATION OF MAPS Ecology and Environment Inc., FET Region II, Chicago, IL

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

Temperature } taken on all groundwater samples.
Conductivity } See Table 4-1 of SSIR.
and pH }

VI. SOURCES OF INFORMATION (See EPA Form 700-1, Rev. 10-19-89)

Ecology and Environment Inc., November 6+7, 1990
Screening Site Inspection, of NU-Glo Laboratory
Site, Log Book, and FET Files.
USEPA# OH 1004248613



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 7 - OWNER INFORMATION

L IDENTIFICATION

01 STATE 02 SITE NUMBER
OH 00042486 13

II. CURRENT OWNER(S)				PARENT COMPANY (if applicable)			
01 NAME B.B. Matthews		07 D+B NUMBER N/A		06 NAME		09 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.) 7328 Bennett / PO Box 123		04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)		11 SIC CODE	
05 CITY Xenia		06 STATE 07 ZIP CODE OH 45385		12 CITY		13 STATE 14 ZIP CODE	
01 NAME		02 D+B NUMBER		06 NAME		09 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)		11 SIC CODE	
05 CITY		06 STATE 07 ZIP CODE		12 CITY		13 STATE 14 ZIP CODE	
01 NAME		02 D+B NUMBER		06 NAME		09 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)		11 SIC CODE	
05 CITY		06 STATE 07 ZIP CODE		12 CITY		13 STATE 14 ZIP CODE	
01 NAME		02 D+B NUMBER		06 NAME		09 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)		11 SIC CODE	
05 CITY		06 STATE 07 ZIP CODE		12 CITY		13 STATE 14 ZIP CODE	
01 NAME		02 D+B NUMBER		06 NAME		09 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)		11 SIC CODE	
05 CITY		06 STATE 07 ZIP CODE		12 CITY		13 STATE 14 ZIP CODE	
III. PREVIOUS OWNER(S) (Last must record first)				IV. REALTY OWNER(S) (if applicable; last must record first)			
01 NAME Shirley Miroche		02 D+B NUMBER N/A		01 NAME		02 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE N/A		03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE	
05 CITY Bever Creek		06 STATE 07 ZIP CODE OH		05 CITY		06 STATE 07 ZIP CODE	
01 NAME		02 D+B NUMBER		01 NAME		02 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE	
05 CITY		06 STATE 07 ZIP CODE		05 CITY		06 STATE 07 ZIP CODE	
01 NAME		02 D+B NUMBER		01 NAME		02 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE	
05 CITY		06 STATE 07 ZIP CODE		05 CITY		06 STATE 07 ZIP CODE	
V. SOURCES OF INFORMATION (Name, address, telephone, etc.; if more than one source, specify, if possible)							
Ecology and Environment, Inc. FIT Region II, Files; Chicago, IL.							



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 8 - OPERATOR INFORMATION

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
014 D004248613

II. CURRENT OPERATOR (Provide if different from owner)				OPERATOR'S PARENT COMPANY (if applicable)			
01 NAME		02 D+B NUMBER		10 NAME		11 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		12 STREET ADDRESS (P.O. Box, RFD #, etc.)		13 SIC CODE	
05 CITY		06 STATE	07 ZIP CODE	14 CITY		15 STATE	16 ZIP CODE
08 YEARS OF OPERATION		09 NAME OF OWNER		14 CITY		15 STATE	
III. PREVIOUS OPERATOR(S) (List must record time; provide only if different from owner)				PREVIOUS OPERATORS' PARENT COMPANIES (if applicable)			
01 NAME		02 D+B NUMBER		10 NAME		11 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		12 STREET ADDRESS (P.O. Box, RFD #, etc.)		13 SIC CODE	
05 CITY		06 STATE	07 ZIP CODE	14 CITY		15 STATE	16 ZIP CODE
08 YEARS OF OPERATION		09 NAME OF OWNER DURING THIS PERIOD		14 CITY		15 STATE	
01 NAME		02 D+B NUMBER		10 NAME		11 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		12 STREET ADDRESS (P.O. Box, RFD #, etc.)		13 SIC CODE	
05 CITY		06 STATE	07 ZIP CODE	14 CITY		15 STATE	16 ZIP CODE
08 YEARS OF OPERATION		09 NAME OF OWNER DURING THIS PERIOD		14 CITY		15 STATE	
01 NAME		02 D+B NUMBER		10 NAME		11 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		12 STREET ADDRESS (P.O. Box, RFD #, etc.)		13 SIC CODE	
05 CITY		06 STATE	07 ZIP CODE	14 CITY		15 STATE	16 ZIP CODE
08 YEARS OF OPERATION		09 NAME OF OWNER DURING THIS PERIOD		14 CITY		15 STATE	

IV. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Ecology and Environment, EIT Reg. or II
Files, Chicago, IL.



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 9 - GENERATOR/TRANSPORTER INFORMATION

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
OH D004248613

II. ON-SITE GENERATOR

01 NAME B.B. Matthews	02 D+B NUMBER —
03 STREET ADDRESS (P.O. Box, RFD #, etc.) 1328 Burnett Rd. Box 123	04 SIC CODE —
05 CITY Xenia, OH	06 STATE 07 ZIP CODE OH 45385

III. OFF-SITE GENERATOR(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE 07 ZIP CODE	05 CITY	06 STATE 07 ZIP CODE
01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE 07 ZIP CODE	05 CITY	06 STATE 07 ZIP CODE

IV. TRANSPORTER(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE 07 ZIP CODE	05 CITY	06 STATE 07 ZIP CODE
01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE 07 ZIP CODE	05 CITY	06 STATE 07 ZIP CODE

V. SOURCES OF INFORMATION (List specific references, e.g., state files, company records, reports)

Ecology and Environment, FIT Region II
Files, Chicago, IL



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I IDENTIFICATION

01 STATE 02 SITE NUMBER

OH D004248613

II PAST RESPONSE ACTIVITIES

01 ☒ A WATER SUPPLY CLOSED

02 DATE July 18, 1985

03 AGENCY GCHD

04 DESCRIPTION GCHD urged Shadybrook residents to discontinue use of well water for drinking. The recommendation lasted for about 2 weeks.

Greene County Health Department

01 ☒ B TEMPORARY WATER SUPPLY PROVIDED

02 DATE July 18, 1985

03 AGENCY Beaver Creek City Council

04 DESCRIPTION Beaver Creek City Council provided temporary alternate water supply to the Shadybrook residents for testing period and until the test results proved the water safe for consumption. (about 2 weeks).

01 ☐ C PERMANENT WATER SUPPLY PROVIDED

02 DATE

03 AGENCY

04 DESCRIPTION

N/A

01 ☐ D SPILLED MATERIAL REMOVED

02 DATE

03 AGENCY

04 DESCRIPTION

N/A

01 ☐ E CONTAMINATED SOIL REMOVED

02 DATE

03 AGENCY

04 DESCRIPTION

N/A

01 ☐ F WASTE REPACKAGED

02 DATE

03 AGENCY

04 DESCRIPTION

N/A

01 ☐ G WASTE DISPOSED ELSEWHERE

02 DATE

03 AGENCY

04 DESCRIPTION

N/A

01 ☐ H ON SITE BURIAL

02 DATE

03 AGENCY

04 DESCRIPTION

N/A

01 ☐ I IN SITU CHEMICAL TREATMENT

02 DATE

03 AGENCY

04 DESCRIPTION

N/A

01 ☐ J IN SITU BIOLOGICAL TREATMENT

02 DATE

03 AGENCY

04 DESCRIPTION

N/A

01 ☐ K IN SITU PHYSICAL TREATMENT

02 DATE

03 AGENCY

04 DESCRIPTION

N/A

01 ☐ L ENCAPSULATION

02 DATE

03 AGENCY

04 DESCRIPTION

N/A

01 ☐ M EMERGENCY WASTE TREATMENT

02 DATE

03 AGENCY

04 DESCRIPTION

N/A

01 ☐ N CUTOFF WALLS

02 DATE

03 AGENCY

04 DESCRIPTION

N/A

01 ☐ O EMERGENCY DIVERTING SURFACE WATER DIVERSION

02 DATE

03 AGENCY

04 DESCRIPTION

N/A

01 ☐ P CUTOFF TRENCHES/SLIP

02 DATE

03 AGENCY

04 DESCRIPTION

N/A

01 ☐ Q SUBSURFACE CUTOFF WALL

02 DATE

03 AGENCY

04 DESCRIPTION

N/A



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
OH 00042486 13

II. PAST RESPONSE ACTIVITIES *Continued*

01 ☐ R. BARRIER WALLS CONSTRUCTED
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ S. CAPPING/COVERING
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ T. BULK TANKAGE REPAIRED
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ U. GROUT CURTAIN CONSTRUCTED
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ V. BOTTOM SEALED
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ W. GAS CONTROL
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ X. FIRE CONTROL
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ Y. LEACHATE TREATMENT
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ Z. AREA EVACUATED
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ 1. ACCESS TO SITE RESTRICTED
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ 2. POPULATION RELOCATED
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ 3. OTHER REMEDIAL ACTIVITIES
04 DESCRIPTION

02 DATE

03 AGENCY

III. SOURCES OF INFORMATION *(Can include references to e.g., state files, sample analysis, reports)*

*Ecology and Environment, FET Region II
Files; Chicago, IL.*



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 11 - ENFORCEMENT INFORMATION

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
OH D0042486 13

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY/ENFORCEMENT ACTION ☒ YES ☐ NO

02 DESCRIPTION OF FEDERAL, STATE, LOCAL REGULATORY/ENFORCEMENT ACTION

*See Narrative
Subsection 2.3.*

III. SOURCES OF INFORMATION (Cite specific references, e.g., EPA files, agency studies, reports)

*Ecology and Environment, FET Region II
Files, Chicago IL*

APPENDIX C

FIT SITE PHOTOGRAPHS

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: W. G. Laboratory

PAGE 16 OF 16

U.S. EPA ID: 04D004248 613 TDD: FOS-9007-006

PAN: F04H0585SA

DATE: > 11-7-90

TIME: > 1200

DIRECTION OF
PHOTOGRAPH:

> Southwest

WEATHER

CONDITIONS:

> ~45°F

> Cloudy

PHOTOGRAPHED BY:

> J. Visser

SAMPLE ID

(if applicable):

>



DESCRIPTION: > Area in the back of Ankney Engraving.

>

SITE NAME:

Nu Glo Laboratory

PAGE 15 OF 16

U.S. EPA ID:

0HP004248613

TDD: F05-9007-006

PAN:

F01405855A

DATE:

> 11-7-90

TIME:

> 1200

DIRECTION OF
PHOTOGRAPH:

> West

WEATHER
CONDITIONS:

> ~45°F

> Cloudy

PHOTOGRAPHED BY:

> J. Visser

SAMPLE ID
(if applicable):

>



DESCRIPTION:

> Back-yard area of Nu Glo labor-
> atory.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME:

Nu Glo Laboratory

U.S. EPA ID:

0HP004248613

TDD: F05-9007-006

PAN:

F01405855A

DATE:

> 11-7-90

TIME:

> 1200

DIRECTION OF
PHOTOGRAPH:

> Northeast

WEATHER
CONDITIONS:

> ~45°F

> Cloudy

PHOTOGRAPHED BY:

> J. Visser

SAMPLE ID
(if applicable):

>



DESCRIPTION:

> The Front area view of Nu Glo Lab, (mail box)
> Ankeny Engineering, (drive way with Ford in it), and
Busy Beaver Arts and crafts (Blue pick-up w/ shell attached).
along Xenia - Davison Road

SITE NAME: Nu Glo Laboratory

PAGE 14 OF 16

U.S. EPA ID: OH0004248613 TDD: F05-9007-006

PAN: F0405855A

DATE: > 11-7-90

TIME: > 12 00

DIRECTION OF
PHOTOGRAPH:

> South

WEATHER
CONDITIONS:

> ~45° F

> Cloudy

PHOTOGRAPHED BY:

> J. Visser

SAMPLE ID
(if applicable):

>



DESCRIPTION: > The front of Nu-Glo Laboratory.

> From across XENIA DAYTON Road, (at left Ancney)

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Nu Glo Laboratory

U.S. EPA ID: OH0004248613 TDD: F05-9007-006

PAN: F0405855A

DATE: > 11-7-90

TIME: > 1200

DIRECTION OF
PHOTOGRAPH:

> West

WEATHER
CONDITIONS:

> ~45° F

> Cloudy

PHOTOGRAPHED BY:

> J. Visser

SAMPLE ID
(if applicable):

>



DESCRIPTION: > The side of Nu-Glo Laboratory

>

SITE NAME: Nu Glo Laboratory

PAGE 13 OF 16

U.S. EPA ID: OH D 004248613 TDD: F05-9007-006

PAN: F0405855A

DATE: > 11-7-90

TIME: > 1140

DIRECTION OF
PHOTOGRAPH:

> South

WEATHER
CONDITIONS:

> 45° F

> Cloudy

PHOTOGRAPHED BY:

> J. V. Sser

SAMPLE ID
(if applicable):

> S9



DESCRIPTION: >

Close-up of Sediment Sample

> S9

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Nu Glo Laboratory

U.S. EPA ID: OH D 004248613 TDD: F05-9007-006

PAN: F0405855A

DATE: > 11-7-90

TIME: > 1140

DIRECTION OF
PHOTOGRAPH:

> South

WEATHER
CONDITIONS:

> 45° F

> Cloudy

PHOTOGRAPHED BY:

> J. V. Sser

SAMPLE ID
(if applicable):

> S9



DESCRIPTION: >

Perspective of Sediment Sample S9

>

SITE NAME: Nu Glo Laboratory

PAGE 12 OF 16

U.S. EPA ID: OH0004248613 TDD: F05-9007-006 PAN: F0H05855A

DATE: > 11-7-90

TIME: > 1110

DIRECTION OF
PHOTOGRAPH:

> Northeast

WEATHER
CONDITIONS:

> 45°F

> Cloudy

PHOTOGRAPHED BY:

> J. Visser

SAMPLE ID
(if applicable):

> 58



DESCRIPTION: >

Close-up of sediment sample 58

>

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Nu Glo Laboratory

U.S. EPA ID: OH0004248613 TDD: F05-9007-006 PAN: F0H05855A

DATE: > 11-7-90

TIME: > 1110

DIRECTION OF
PHOTOGRAPH:

> Northeast

WEATHER
CONDITIONS:

> 45°F

> Cloudy

PHOTOGRAPHED BY:

> J. Visser

SAMPLE ID
(if applicable):

> 58



DESCRIPTION: >

Perspective of sediment sample 58

>

Note Busy Beaver Arts and Crafts in Background.

SITE NAME: Nu G10 Laboratory

PAGE 11 OF 16

U.S. EPA ID: OH0004248613 TDD: F05-9007-006 PAN: F0405855A

DATE: > 11-7-90

TIME: > 1100

DIRECTION OF
PHOTOGRAPH:
> Northeast

WEATHER
CONDITIONS:
> Cloudy

> 45°F

PHOTOGRAPHED BY:
> J. Visser

SAMPLE ID
(if applicable):
> 57



DESCRIPTION: > Close-up of Sediment Sample

>

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Nu G10 Laboratory

U.S. EPA ID: OH0004248613 TDD: F05-9007-006 PAN: F0405855A

DATE: > 11-7-90

TIME: > 1100

DIRECTION OF
PHOTOGRAPH:
> Northeast

WEATHER
CONDITIONS:
> 45°F

> Cloudy

PHOTOGRAPHED BY:
> J. Visser

SAMPLE ID
(if applicable):
> 57



DESCRIPTION: > Perspective of Sediment Sample 57

>

Note Stream

SITE NAME: Nu G6 Laboratory

PAGE 10 OF 16

U.S. EPA ID: OH D004248613 TDD: F05-9007-006 PAN: F040585SA

DATE: > 11-7-90

TIME: > 1040

DIRECTION OF
PHOTOGRAPH:
> Southwest

WEATHER
CONDITIONS:

> 45°F

> Cloudy

PHOTOGRAPHED BY:

> J. Visser

SAMPLE ID
(if applicable):

> S6



DESCRIPTION: > Close-up Soil Sample 6

>

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Nu G6 Laboratory

U.S. EPA ID: OH D004248613 TDD: F05-9007-006 PAN: F040585SA

DATE: > 11-7-90

TIME: > 1040

DIRECTION OF
PHOTOGRAPH:
> Southwest

WEATHER
CONDITIONS:

> 45°F

> Cloudy

PHOTOGRAPHED BY:

> J. Visser

SAMPLE ID
(if applicable):

> S6



DESCRIPTION: > Perspective Soil Sample 6

> Note shed location.

SITE NAME: Nu Glo Laboratory

PAGE 9 OF 16

U.S. EPA ID: OH D004248613 TDD: F05-9007-006

PAN: F0H05855A

DATE: > 11-7-90

TIME: > 10:40

DIRECTION OF
PHOTOGRAPH:

> East

WEATHER
CONDITIONS:

> 45°F

> Cloudy

PHOTOGRAPHED BY:

> J. Visser

SAMPLE ID
(if applicable):

> 35



DESCRIPTION: > Close up, site of Soil Sample 5

>

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Nu Glo Laboratory

U.S. EPA ID: OH D004248613 TDD: F05-9007-006

PAN: F0H05855A

DATE: > 11-7-90

TIME: > 1040

DIRECTION OF
PHOTOGRAPH:

> East

WEATHER
CONDITIONS:

> 45°F

> Cloudy

PHOTOGRAPHED BY:

> J. Visser

SAMPLE ID
(if applicable):

> 35



DESCRIPTION: > Perspective Soil Sample 5

> Note Barrels on Nu Glo Laboratory's southwest side

SITE NAME: NuGlo Laboratory

PAGE 8 OF 16

U.S. EPA ID: OH D004248613 TDD: F05-9007-006

PAN: F0H05858A

DATE: > 1-7-90

TIME: > 10 25

DIRECTION OF
PHOTOGRAPH:

> North

WEATHER
CONDITIONS:

> 45°F

> Cloudy

PHOTOGRAPHED BY:

> J. Visser

SAMPLE ID
(if applicable):

> 54



DESCRIPTION: > Close up of soil sample 4

>

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: NuGlo Laboratory

U.S. EPA ID: OH D004248613 TDD: F05-9007-006

PAN: F0H05858A

DATE: > 1-7-90

TIME: > 10 25

DIRECTION OF
PHOTOGRAPH:

> North

WEATHER
CONDITIONS:

> 45°F

> Cloudy

PHOTOGRAPHED BY:

> J. Visser

SAMPLE ID
(if applicable):

> 54



DESCRIPTION: > Perspective of soil sample 4

> Note Barrels, and NuGlo Laboratory

SITE NAME: Nu GLo Laboratory

PAGE 7 OF 16

U.S. EPA ID: 042004248613 TDD: F05-9007-006

PAN: F0405855A

DATE: > 11-7-90

TIME: > 10:15

DIRECTION OF
PHOTOGRAPH:

> Northeast

WEATHER
CONDITIONS:

> 45°F

> cloudy

PHOTOGRAPHED BY:

> J. Visser

SAMPLE ID
(if applicable):

> S3



DESCRIPTION: >

close-up Soil Sample 3

>

Note Pond.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Nu GLo Laboratory

U.S. EPA ID: 042004248613 TDD: F05-9007-006

PAN: F0405855A

DATE: > 11-7-90

TIME: > 10:15

DIRECTION OF
PHOTOGRAPH:

> Northeast

WEATHER
CONDITIONS:

> 45°F

> cloudy

PHOTOGRAPHED BY:

> J. Visser

SAMPLE ID
(if applicable):

> S3



DESCRIPTION: >

Perspective Soil Sample 3

>

Note Shed - background, Nu GLo - background,
+ Pond to left.

SITE NAME: Nu Glo Laboratory

PAGE 6 OF 16

U.S. EPA ID: OH0004248613 TDD: F05-9007-006 PAN: F040585SA

DATE: > 11-7-90

TIME: > 1015

DIRECTION OF
PHOTOGRAPH:

> North

WEATHER
CONDITIONS:

> 45° F

> Cloudy

PHOTOGRAPHED BY:

> Julie Visser

SAMPLE ID
(if applicable):

> S2



DESCRIPTION: > Close-up of Soil Sample 2 location

>

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Nu Glo Laboratory

U.S. EPA ID: OH0004248613 TDD: F05-9007-006

PAN: F040585SA

DATE: > 11-7-90

TIME: > 1015

DIRECTION OF
PHOTOGRAPH:

> North

WEATHER
CONDITIONS:

> 45° F

> Cloudy

PHOTOGRAPHED BY:

> Julie Visser

SAMPLE ID
(if applicable):

> S2



DESCRIPTION: > Perspective of Soil Sample 2 location

> Note shed location

SITE NAME: Nu Glo Laboratory

PAGE 5 OF 16

U.S. EPA ID: OH0004248613 TDD: F05-9007-006

PAN: F0405855A

DATE: > 11-7-90

TIME: > 1150

DIRECTION OF
PHOTOGRAPH:

> South

WEATHER
CONDITIONS:

> 45°F

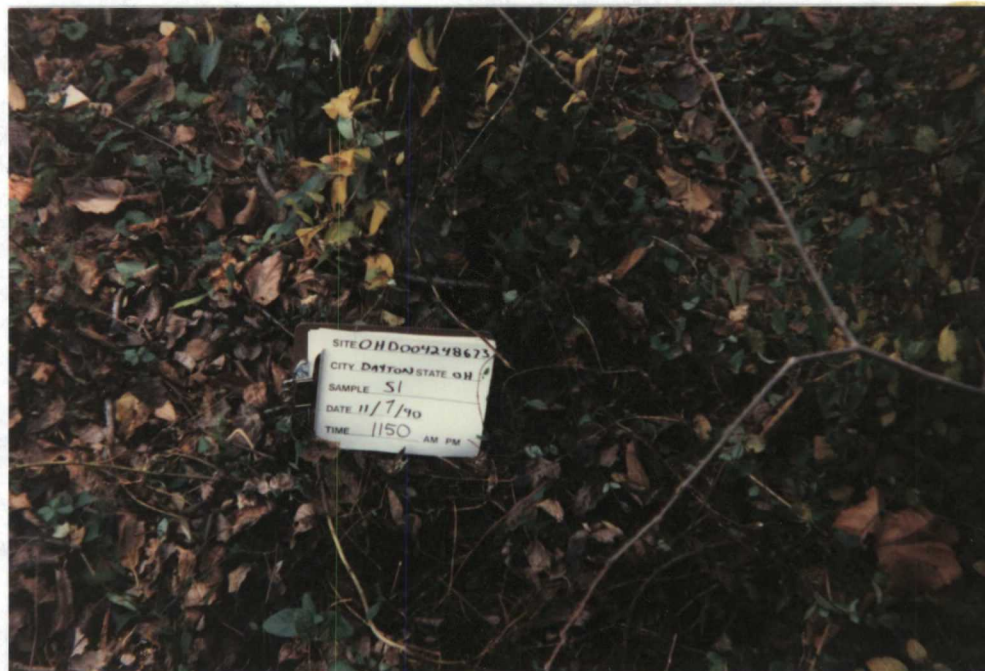
> Cloudy

PHOTOGRAPHED BY:

> J. Visser

SAMPLE ID
(if applicable):

> S1



DESCRIPTION: >

Close up of Soil Sample 1 location
for sampling.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Nu Glo Laboratory

U.S. EPA ID: OH0004248613 TDD: F05-9007-006

PAN: F0405855A

DATE: > 11-7-90

TIME: > 1150

DIRECTION OF
PHOTOGRAPH:

> South

WEATHER
CONDITIONS:

> 45°F

> Cloudy

PHOTOGRAPHED BY:

> J. Visser

SAMPLE ID
(if applicable):

> S1



DESCRIPTION: >

Perspective of Soil Sample 1

> Xenia Dayton Road is barely seen in Background.
(not to be confused with Road to the left of photo).

SITE NAME: Nu Glo Laboratory

PAGE 4 OF 16

U.S. EPA ID: 04D004248613 TDD: F05-9007-006

PAN: F05-0585SA

DATE: > 11-6-90

TIME: > 1430

DIRECTION OF
PHOTOGRAPH:

> West

WEATHER
CONDITIONS:

> ~45° F

> Cloudy

PHOTOGRAPHED BY:

> J.V. Sser

SAMPLE ID
(if applicable):

> MW 4



DESCRIPTION: > Mon: toring Well 4 close-up

>

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Nu Glo Laboratory

U.S. EPA ID: 04D004248613 TDD: F05-9007-006

PAN: F05-0585SA

DATE: > 11-6-90

TIME: > 1430

DIRECTION OF
PHOTOGRAPH:

> West

WEATHER
CONDITIONS:

> ~45° F

> Cloudy

PHOTOGRAPHED BY:

> J.V. Sser

SAMPLE ID
(if applicable):

> MW 4



DESCRIPTION: > Perspective ; Mon: toring Well 4

>

Note shed location

SITE NAME: Nu Glo Laboratory

PAGE 3 OF 16

U.S. EPA ID: OH004248613 TDD: F05-9007-006

PAN: F0H05-855A

DATE: > 11-6-90

TIME: > 1515

DIRECTION OF
PHOTOGRAPH:

> West

WEATHER
CONDITIONS:

> ~45°F

> cloudy

PHOTOGRAPHED BY:

> J. Visser

SAMPLE ID
(if applicable):

> MW3



DESCRIPTION: > Monitoring Well 3 close-up

>

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Nu Glo Laboratory

U.S. EPA ID: OH004248613 TDD: F05-9007-006

PAN: F0H05855A

DATE: > 11-6-90

TIME: > 1515

DIRECTION OF
PHOTOGRAPH:

> West

WEATHER
CONDITIONS:

> ~45°F

> cloudy

PHOTOGRAPHED BY:

> J. Visser

SAMPLE ID
(if applicable):

> MW3



DESCRIPTION: > Perspective, Monitoring Well 3

> Note Shed location, NuGlo through trees at Right.

SITE NAME: Nu-Glo Laboratory

PAGE 2 OF 16

U.S. EPA ID: OH0004248613 TDD: FO5-9007-006 PAN: FOH05858A

DATE: > 11-6-90

TIME: > 1530

DIRECTION OF
PHOTOGRAPH:

> West

WEATHER
CONDITIONS:

> ~45°F

> Cloudy

PHOTOGRAPHED BY:

> J. V. Sser

SAMPLE ID
(if applicable):

> MW2



DESCRIPTION: > Monitoring Well 2 close-up

>

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Nu-Glo Laboratory

U.S. EPA ID: OH0004248613 TDD: FO5-9007-006 PAN: FOH05858A

DATE: > 11-6-90

TIME: > 1530

DIRECTION OF
PHOTOGRAPH:

> West

WEATHER
CONDITIONS:

> ~45°F

> Cloudy

PHOTOGRAPHED BY:

> J. V. Sser

SAMPLE ID
(if applicable):

> MW2



DESCRIPTION: > Perspective of Monitoring Well 2,

> Note Shed and near property of Nu-Glo Lab:

SITE NAME: Nu Glo Laboratory

PAGE 1 OF 16

U.S. EPA ID: OH0004248613 TDD: F05-9007-006

PAN: F0405855A

DATE: > 11-6-90

TIME: > 1415

DIRECTION OF
PHOTOGRAPH:

> North

WEATHER
CONDITIONS:

> N45°E

> Cloudy

PHOTOGRAPHED BY:

> Julie Visser

SAMPLE ID
(if applicable):

> MW1



DESCRIPTION: >

Monitoring well 1 - close up

>

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Nu Glo Laboratory

U.S. EPA ID: OH0004248613 TDD: F05-9007-006

PAN: F0405855A

DATE: > 11-6-90

TIME: > 1415

DIRECTION OF
PHOTOGRAPH:

> N

WEATHER
CONDITIONS:

> N45°E

> Cloudy

PHOTOGRAPHED BY:

> J. Visser

SAMPLE ID
(if applicable):

> MW1



DESCRIPTION: >

Perspective of Monitoring well 1

>

APPENDIX D

**U.S. EPA TARGET COMPOUND LIST AND
TARGET ANALYTE LIST
QUANTITATION/DETECTION LIMITS**

Contract Laboratory Program
Target Compound List
Quantitation Limits

COMPOUND	CAS #	WATER	SOIL SEDIMENT SLUDGE
Chloromethane	74-87-3	10 ug/L	10 ug/Kg
Bromomethane	74-83-9	10	10
Vinyl chloride	75-01-4	10	10
Chloroethane	75-00-3	10	10
Methylene chloride	75-09-2	5	5
Acetone	67-64-1	10	5
Carbon disulfide	75-15-0	5	5
1,1-dichloroethene	75-35-4	5	5
1,1-dichloroethane	75-34-3	5	5
1,2-dichloroethene (total)	540-59-0	5	5
Chloroform	67-66-3	5	5
1,2-dichloroethane	107-06-2	5	5
2-butanone (MEK)	78-93-3	10	10
1,1,1-trichloroethane	71-55-6	5	5
Carbon tetrachloride	56-23-5	5	5
Vinyl acetate	108-05-4	10	10
Bromodichloromethane	75-27-4	5	5
1,2-dichloropropane	78-87-5	5	5
cis-1,3-dichloropropene	10061-01-5	5	5
Trichloroethene	79-01-6	5	5
Dibromochloromethane	124-48-1	5	5
1,1,2-trichloroethane	79-00-5	5	5
Benzene	71-43-2	5	5
Trans-1,3-dichloropropene	10061-02-6	5	5
Bromoform	75-25-2	5	5
4-Methyl-2-pentanone	108-10-1	10	10
2-Hexanone	591-78-6	10	10
Tetrachloroethene	127-18-4	5	5
Toluene	108-88-3	5	5
1,1,2,2-tetrachloroethane	79-34-5	5	5
Chlorobenzene	108-90-7	5	5
Ethyl benzene	100-41-4	5	5
Styrene	100-42-5	5	5
Xylenes (total)	1330-20-7	5	5

Table A
Contract Laboratory Program
Target Compound List
Semivolatiles Quantitation Limits

COMPOUND	CAS #	WATER	SOIL SEDIMENT SLUDGE
Phenol	108-95-2	10 ug/L	330 ug/Kg
bis(2-Chloroethyl) ether	111-44-4	10	330
2-Chlorophenol	95-57-8	10	330
1,3-Dichlorobenzene	541-73-1	10	330
1,4-Dichlorobenzene	106-46-7	10	330
Benzyl Alcohol	100-51-6	10	330
1,2-Dichlorobenzene	95-50-1	10	330
2-Methylphenol	95-48-7	10	330
bis(2-Chloroisopropyl) ether	108-60-1	10	330
4-Methylphenol	106-44-5	10	330
N-Nitroso-di-n-dipropylamine	621-64-7	10	330
Hexachloroethane	67-72-1	10	330
Nitrobenzene	98-95-3	10	330
Isophorone	78-59-1	10	330
2-Nitrophenol	88-75-5	10	330
2,4-Dimethylphenol	105-67-9	10	330
Benzoic Acid	65-85-0	50	1600
bis(2-Chloroethoxy) methane	111-91-1	10	330
2,4-Dichlorophenol	120-83-2	10	330
1,2,4-Trichlorobenzene	120-82-1	10	330
Naphthalene	91-20-3	10	330
4-Chloroaniline	106-47-8	10	330
Hexachlorobutadiene	87-68-3	10	300
4-Chloro-3-methylphenol	59-50-7	10	330
2-Methylnaphthalene	91-57-6	10	330
Hexachlorocyclopentadiene	77-47-4	10	330
2,4,6-Trichlorophenol	88-06-2	10	330
2,4,5-Trichlorophenol	95-95-4	50	1600
2-Chloronaphthalene	91-58-7	10	330
2-Nitroaniline	88-74-4	50	1600
Dimethylphthalate	131-11-3	10	330
Acenaphthylene	208-96-8	10	330
2,6-Dinitrotoluene	606-20-2	10	330
3-Nitroaniline	99-09-2	50	1600
Acenaphthene	83-32-9	10	330
2,4-Dinitrophenol	51-28-5	50	1600
4-Nitrophenol	100-02-7	50	1600
Dibenzofuran	132-64-9	10	330
2,4-Dinitrotoluene	121-14-2	10	330
Diethylphthalate	84-66-2	10	330
4-Chlorophenyl-phenyl ether	7005-72-3	10	330

Table A
Contract Laboratory Program
Target Compound List
Semivolatiles Quantitation Limits

COMPOUND	CAS #	WATER	SOIL SLUDGE SEDIMENT
Fluorene	86-73-7	10 ug/L	330 ug/Kg
4-Nitroaniline	100-01-6	50	1600
4,6-Dinitro-2-methylphenol	534-52-1	50	1600
N-nitrosodiphenylamine	86-30-6	10	330
4-Bromophenyl-phenylether	101-55-3	10	330
Hexachlorobenzene	118-74-1	10	330
Pentachlorophenol	87-86-5	50	1600
Phenanthrene	85-01-8	10	330
Anthracene	120-12-7	10	330
Di-n-butylphthalate	84-74-2	10	330
Fluoranthene	206-44-0	10	330
Pyrene	129-00-0	10	330
Butylbenzylphthalate	85-68-7	10	330
3,3'-Dichlorobenzidine	91-94-1	20	660
Benzo(a)anthracene	56-55-3	10	330
Chrysene	218-01-9	10	330
bis(2-Ethylhexyl)phthalate	117-81-7	10	330
Di-n-octylphthalate	117-84-0	10	330
Benzo(b)fluoranthene	205-99-2	10	330
Benzo(k)fluoranthene	207-08-9	10	330
Benzo(a)pyrene	50-32-8	10	330
Indeno(1,2,3-cd)pyrene	193-39-5	10	330
Dibenz(a,h)anthracene	53-70-3	10	330
Benzo(g,h,i)perylene	191-24-2	10	330

Table A
Contract Laboratory Program
Target Compound List
Pesticide and PCB Quantitation Limits

COMPOUND	CAS #	WATER	SOIL SEDIMENT SLUDGE
alpha-BHC	319-84-6	0.05 ug/L	8 ug/Kg
beta-BHC	319-85-7	0.05	8
delta-BHC	319-86-8	0.05	8
gamma-BHC (Lindane)	58-89-9	0.05	8
Heptachlor	76-44-8	0.05	8
Aldrin	309-00-2	0.05	8
Heptachlor epoxide	1024-57-3	0.05	8
Endosulfan I	959-98-8	0.05	8
Dieldrin	60-57-1	0.10	16
4,4'-DDE	72-55-9	0.10	16
Endrin	72-20-8	0.10	16
Endosulfan II	33213-65-9	0.10	16
4,4'-DDD	72-54-8	0.10	16
Endosulfan sulfate	1031-07-8	0.10	16
4,4'-DDT	50-29-3	0.10	16
Methoxychlor (Mariate)	72-43-5	0.5	80
Endrin ketone	53494-70-5	0.10	16
alpha-Chlordane	5103-71-9	0.5	80
gamma-chlordane	5103-74-2	0.5	80
Toxaphene	8001-35-2	1.0	160
AROCLOR-1016	12674-11-2	0.5	80
AROCLOR-1221	11104-28-2	0.5	80
AROCLOR-1232	11141-16-5	0.5	80
AROCLOR-1242	53469-21-9	0.5	80
AROCLOR-1248	12672-29-6	0.5	80
AROCLOR-1254	11097-69-1	1.0	160
AROCLOR-1260	11096-82-5	1.0	160

Rev 1987

Table A
Contract Laboratory Program
Target Analyte List
Inorganic Quantitation Limits

COMPOUND	PROCEDURE	WATER	Soil SEDIMENT SLUDGE
Aluminum	ICP	200 ug/L	40 mg/Kg
Antimony	Furnace	60	2.4
Arsenic	Furnace	10	2
Barium	ICP	200	40
Beryllium	ICP	5	1
Cadmium	ICP	5	1
Calcium	ICP	5000	1000
Chromium	ICP	10	2
Cobalt	ICP	50	10
Copper	ICP	25	5
Iron	ICP	100	20
Lead	Furnace	5	1
Magnesium	ICP	5000	1000
Manganese	ICP	15	3
Mercury	Cold Vapor	0.2	0.008
Nickel	ICP	40	8
Potassium	ICP	5000	1000
Selenium	Furnace	5	1
Silver	ICP	10	2
Sodium	ICP	5000	1000
Thallium	Furnace	10	2
Vanadium	ICP	50	10
Zinc	ICP	20	4
Cyanide	Color	10	2

Rev 1/88

APPENDIX E

WELL LOGS OF THE AREA OF THE SITE

WELL DRILLING LOG

AUG 28 1978

OWNER'S NAME Imperial Body Repair WELL DRILLER'S NAME W. Barker
 TOWNSHIP Beverly PLAT 4100 STREET Ind. Hwy LOT NO. ---

LOCATION INFORMATION: _____

WELL LOG 3

(SUPPLY ALL INFORMATION REQUESTED)

Drilling Log	Drilled Well	Casing
Indicate Formations Encountered and the Depth at which water is obtained:	Depth <u>31</u> feet	Length <u>31</u> feet
<u>0-3</u> <u>fill dirt</u>	Distance from septic tank or sewer line <u>50</u> feet.	Type of Material: (check which)
<u>3-14</u> <u>yellow clay</u>	Distance from: Leaching Line <u>20</u> feet	1) API Pipe _____
<u>14-18</u> <u>dry gr.</u>	Dry Well <u>50</u> feet	2) Standard Pipe <u>✓</u>
<u>18-31</u> <u>Sand Gr.</u>	Aerobic Plant _____ feet	3) Thin Wall Casing _____
_____	Other Sources of contamination _____ feet.	New _____
_____	Distance from: Property Line _____ feet (25' min. without variance)	Used _____
_____	Static Water Level <u>18</u> ft.	Diameter inside <u>5 3/8</u>
_____	Formation from which water obtained <u>Gravel</u>	Diameter outside <u>6</u>
_____	Perforation Depth <u>at bottom</u>	Weight/ft. <u>10</u> lbs.
_____	(Perforation not permissible within 25' of ground surface)	Type of Joints: check which
_____		Welded _____
_____		Threaded _____
_____		When casing is hammered into rock the annular space outside casing is to be filled with grout from surface of ground to a minimum of 10 feet below ground surface. (Section 7.0, Article 7.10) Check if completed.
_____		Type of seal used on well casing <u>Pitless Adaptor</u>
_____		Length of casing extending above grade _____
_____		Type of Pump <u>Sub.</u>
_____		Type of Pitless Adaptor _____
_____		Is suction line on Jet Pump double cased? _____

Quantity of water in GPM: 5Depth of Pump Setting: 26

CHECK ONE:

I hereby certify that I am a Well Driller ✓, Installer ---, registered with the Greene County Health Department or Property Owner --- and the well at the following location complies with the Greene County Board of Health Regulations Sections 1.0 - Section 22.0.

DATE

8/28/78

Signature of Well Driller, Installer or Property Owner

W. Barker

7

PLEASE USE PENCIL
OR TYPEWRITER
DO NOT USE INK.

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1562 W. First Avenue
Columbus 12, Ohio

ODNR 3 *
No 290002

WELL LOG 4

County Green Township Beavercreek Section of Township _____

Owner Encrete Construction Co. Address _____

Location of property (4614) lot Patterson + Grange Hall Rd. (N.W. Corner)

CONSTRUCTION DETAILS

Casing diameter 5 5/8" Length of casing 47'
Type of screen _____ Length of screen _____
Type of pump Sub.
Capacity of pump _____
Depth of pump setting 45'
Date of completion 12-20-62

BAILING OR PUMPING TEST

Pumping Rate _____ G.P.M. Duration of test 24 hrs.
Drawdown 0 ft. Date _____
Static level-depth to water _____ ft.
Quality (clear, cloudy, taste, odor) Clear
Pump installed by W. Barker + Sons

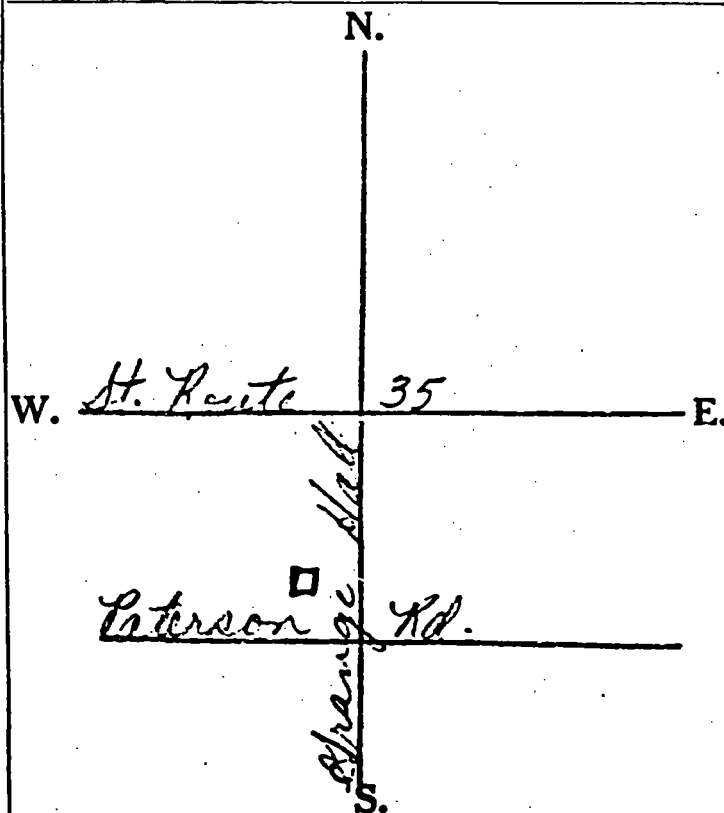
WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
<u>Clay</u>	<u>0 Feet</u>	<u>10 Ft.</u>
<u>Gravel</u>	<u>20 ft.</u>	<u>51 ft.</u>
<u>Clay</u>	<u>51 ft.</u>	<u>56 ft.</u>

Water At 56'

SKETCH SHOWING LOCATION

Locate in reference to numbered
State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm W. Barker + Sons
Address 5053 Patterson Rd.
Dayton, Ohio

Date 12-30-62
Signed Woodrow Barker

Division of Water
1500 Dublin Road
Columbus, Ohio

Well Log 7

No. 207399

County Greene Township Beavercreek Section of Township 2

Name E.J. Johnson Address [REDACTED]

Location of property [REDACTED]

WELL LOG 7

CONSTRUCTION DETAILS	BAILING OR PUMPING TEST
Well diameter <u>5 5/8</u> Length of casing <u>43 Ft.</u>	Pumping rate <u>18</u> G.P.M. Duration of test <u>1</u> hrs.
Size of screen _____ Length of screen _____	Drawdown <u>None</u> ft. Date <u>August 6, 1957</u>
Type of pump _____	Developed capacity <u>Bailer Test</u>
Capacity of pump _____	Static level—depth to water <u>16</u> ft.
Depth of pump setting _____	Pump installed by _____
Date of completion <u>August 6, 1957</u>	

WELL LOG			SKETCH SHOWING LOCATION
Formations sandstone, shale, limestone, gravel and clay	From	To	Locate in reference to numbered State Highways, St. Intersections, County roads, etc.
Top Soil	0 Feet	<u>3</u> Ft.	<u>N.</u>
Clay and Gravel	<u>3</u>	<u>18</u>	
Clay	<u>18</u>	<u>26</u>	
Water gravel	<u>26</u>	<u>43</u>	

W. Pt. 35 E.

Patterson Road

X
Lott Place

RECEIVED

OCT 11 1957

Protection Agency
S.W. DISTRICT

S.

See reverse side for instructions

Drilling Firm H.B. Richardson
1263 Eanes Road

Date August 6, 1957

Signed _____

[Signature]

11

WELL LOG 8

NO CARBON PAPER
NECESSARY-
SELF-TRANSCRIBING

DEPARTMENT OF NATURAL RESOURCES

Division of Water
Fountain Square
Columbus, Ohio 43224

IN Neene TOWNSHIP Beaver Creek SECTION OF TOWNSHIP _____
 PER Beaver Valley Mall ADDRESS Patterson Rd - Rt #35
 PORTION OF PROPERTY Patterson Rd - New Rt #35

CONSTRUCTION DETAILS		BAILING OR PUMPING TEST (specify one by circling)	
diameter <u>6" ID</u>	Length of casing <u>162</u>	Test rate <u>70</u> gpm	Duration of test <u>3+00</u> hrs
screen <u>#60S.2x</u>	Length of screen <u>10'</u>	Drawdown <u>to 20</u> ft	Date <u>27 July 76</u>
pump <u>Sub</u>		Static level (depth to water) <u>15'</u>	
ty of pump <u>50 GPM</u>		Quality (clear, cloudy, taste, odor) <u>Clear</u>	
of pump setting <u>3.5'</u>			
completion		Pump installed by <u>Borne</u>	

[illegible]

1. FIRM Boone
2. 1519 So Central

DATE 1 Aug 76
SIGNED Al Boone

• If additional space is needed to complete well log, use next consecutive numbered form.



37

OR TYPEWRITER.
DO NOT USE INK.

Division of Water
1562 W. First Avenue
Columbus, Ohio

No. 000110

WELL LOG 6

City Greene Township Beaver Creek Section of Township _____
Owner Howard Luter Address [REDACTED]
Location of property [REDACTED]

CONSTRUCTION DETAILS

Inside diameter 5 3/8" Length of casing 42 ft.
Type of screen _____ Length of screen _____
Type of pump _____
Capacity of pump _____
Depth of pump setting _____
Date of completion _____

BAILING OR PUMPING TEST

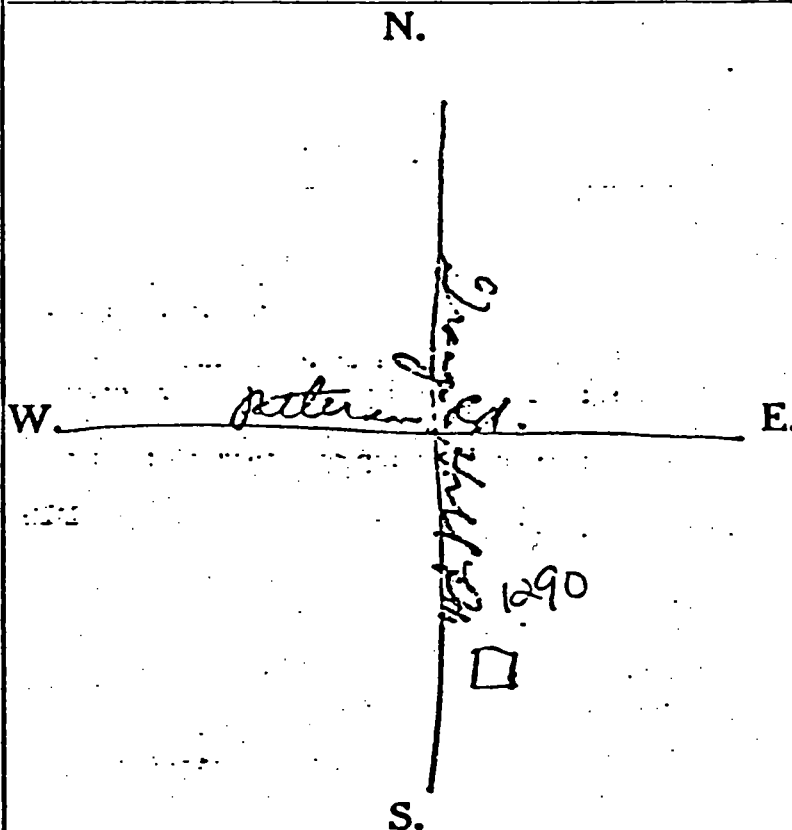
Pumping rate 20 G.P.M. Duration of test _____ hrs.
Drawdown 10 ft. Date _____
Developed capacity 2 gals per min
Static level—depth to water 26 ft.
Pump installed by _____

WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
clay	0 Feet	12 Ft.
gravel	12	42
water		
gravel		

SKETCH SHOWING LOCATION

Locate in reference to numbered
State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm W. B. Richardson & Son Date May 24, 1961
Address 5053 Patterson Rd. Signed W. B. Richardson
Cuyahoga, Ohio

DEPARTMENT OF NATURAL RESOURCES
Division of Water
Columbus, Ohio

109858

WELL LOG 5

Owner Greene Township Bever Creek Section of Township 460
or Lot Number 460
Owner Clayton Simpson Address 721 1/2 St. W. Xenia, Ohio
Location of property [Redacted]

CONSTRUCTION DETAILS

Casing diameter 5 3/8" Length of casing 73 ft.
Type of screen none Length of screen
Type of pump electric
Capacity of pump 300 g. p. hr.
Depth of pump setting 67 ft.

PUMPING TEST

Pumping rate 7 G.P.M. Duration of test 8 hrs.
Drawdown 10 ft. Date 5/2/53
Developed capacity 250 g. p. hr.
Static level—depth to water 38 ft.
Pump installed by driller

WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
<u>yellow clay</u>	<u>0 Feet</u>	<u>30 Ft.</u>
<u>blue clay</u>	<u>30 ft</u>	<u>52 ft</u>
<u>quartzite</u>	<u>52 ft</u>	<u>71 ft.</u>
<u>gravel</u>	<u>71 ft</u>	<u>73 ft.</u>
<u>water at</u>	<u>73 ft.</u>	<u> </u>

SKETCH SHOWING LOCATION

Locate in reference to numbered
State Highways, St. Intersections, County roads, etc.

N.
W. St. Rt. 35 Xenia Pk. E.
S.
See reverse side for instructions

DEPARTMENT OF NATURAL RESOURCES

Drilling Firm W. B. Richardson
Address 4621 Trench Ave.

Date 5/1/53
Signed W. B. Richardson

(S)

X = 1,549,000 ± 300
Y = 629,200 ± 300

WELL LOG AND DRILLING REPORT
State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
Columbus, Ohio

W11

ORIGINAL

WELL LOG 1

No 150401

County GREENE Township BEAVER CREEK Section of Township 4 or Lot Number 3

Owner Mr. Hamilton Address [REDACTED]

Location of property [REDACTED]

CONSTRUCTION DETAILS

Casing diameter 5 5/8 Length of casing 220 ft
Type of screen 1/2 in Length of screen 170 ft
Type of pump Submersible 1/2 Hp
Capacity of pump 400 - 600 gal per hr
Depth of pump setting 170 ft

PUMPING TEST

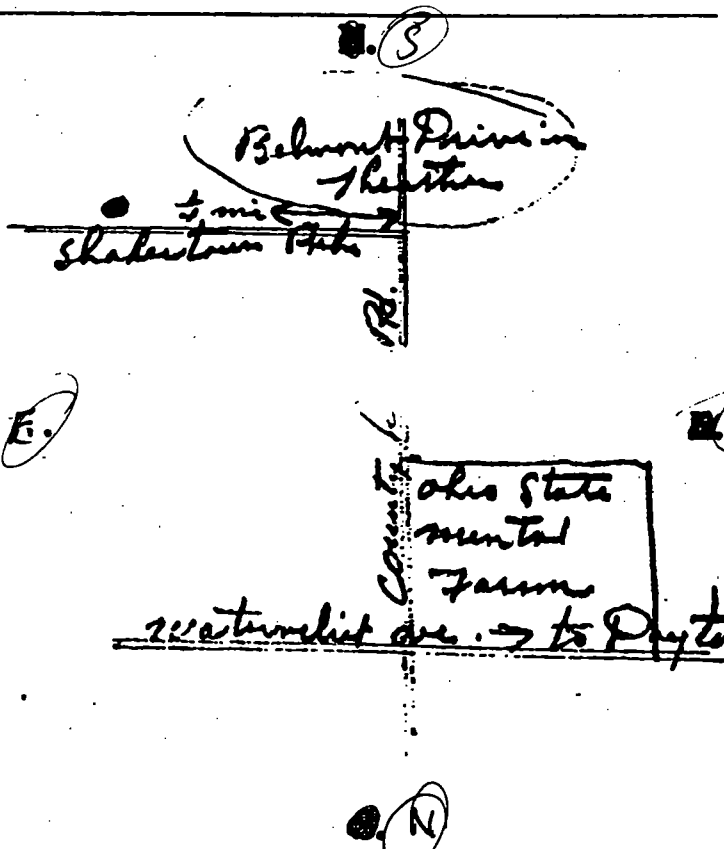
Pumping rate 2000 gal per hr G.P.M. Duration of test 2 hrs
Drawdown 15 - 20 ft. Date Mar 28 - 54
Developed capacity 2000 gal per hr
Static level—depth to water 100 ft
Pump installed by Hamilton Bros.

WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
Clay	0 Feet	30 Ft.
Gravel	30	84
Blue Clay	84	116
Soft Sand	116	148
Coarse sharp sand	148	188
Gravel soft sand mixed	188	201
rich clean gravel + water	214	217
rich gravel	217	220
10		
20+		
90-		

SKETCH SHOWING LOCATION

Locate in reference to numbered
State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm Hamilton Bros.

Address 2444 Pondona Ave

Date Mar 28 - 54

Signed Charles E. Hamilton

36

WE LOG AND DRILLING REPO

1172 1 2

EASE USE PENCIL
OR TYPEWRITER.
DO NOT USE INK.

State of Ohio
DEPARTMENT OF NATURAL RESOURCE
Division of Water
1562 W. First Avenue
Columbus, Ohio

WELL LOG 2

No. 243500

County Green Township Lawrence Section of Township B 13
Owner Harry Hersbacher Address [REDACTED]
Location of property [REDACTED]

CONSTRUCTION DETAILS

BAILING OR PUMPING TEST

Casing diameter 5 7/8 Length of casing 185
Type of screen 4 x 10 yds to 195 ft. Length of screen
Type of pump
Capacity of pump
Depth of pump setting
Date of completion

Pumping rate 10 G.P.M. Duration of test 10 hrs.
Drawdown 10 ft. Date June 3,
Developed capacity 5000 H.
Static level—depth to water 60 ft.
Pump installed by

WELL LOG

SKETCH SHOWING LOCATION

Formations Sandstone, shale, limestone, gravel and clay	From	To
○ Sand & gravel. Clay. gravel at 0	0 Feet	31 Ft.
	31	32
	32	195
		195

Locate in reference to numbered
State Highways, St. Intersections, County roads, etc.

N.

N

Green County line

S.

See reverse side for instructions

Drilling Firm Clay B. Garrison
Address 390 N. D. Dr. Dayton Ohio.

Date June 7, 1960
Signed Clay B. Garrison

868
195+
673-